



Db 361 GGAGTAATCCGATCGACGACGCGGGGACACAGACGCTGGGGTGGCGCGGACCC 420  
Oy 421 CGTACCGCTCGGGGGGGGAGGCGCGCTCGCGGGGGGTGTGCGCTCGCGCGGAGGT 480  
Db 421 CGTACCGCTCGGGGGGGGAGGCGCGCTCGCGGGGGGTGTGCGCTCGCGCGGAGGT 480  
Oy 481 CGAGCGCCAGAGAGTCTTCAAGCGCGCTCGCGCGCGCTCGCGCGGAGCATAA 540  
Db 481 CGAGCGCCAGAGAGTCTTCAAGCGCGCTCGCGCGCGCTCGCGCGGAGCATAA 540  
Oy 541 AGGCGACGCTCGCGAGAGGCTGGGTGGGGGAAAGCCAGAGAGAGCATACCGAGG 600  
Db 541 AGGCGACGCTCGCGAGAGGCTGGGTGGGGGAAAGCCAGAGAGAGCATACCGAGG 600  
Oy 601 AGGAGCGCTGGGGCTGGCGCGCGCTGGAGGGGCGCGGATGGGGCGGAGACGAGGA 660  
Db 601 AGGAGCGCTGGGGCTGGCGCGCGCTGGAGGGGCGCGGATGGGGCGGAGACGAGGA 660  
Oy 661 GGGCATTGGACAGACGCTTGGGTCTCGAAGAACTTGGCGGAGAGTACGAGCTCGGGA 720  
Db 661 GGGCATTGGACAGACGCTTGGGTCTCGAAGAACTTGGCGGAGAGTACGAGCTCGGGA 720  
Oy 721 AGGAGTGGGGAGGGGCGCCTTGGAGACACTTCTCGCGCGCTGCTGAAGAGGGCGAGT 780  
Db 721 AGGAGTGGGGAGGGGCGCCTTGGAGACACTTCTCGCGCGCTGCTGAAGAGGGCGAGT 780  
Oy 781 ACAAGGGACAGACGCTGGCGCTCAAGATCATCGCCAAAGCTAAGATACAAAGCGCATAT 840  
Db 781 ACAAGGGACAGACGCTGGCGCTCAAGATCATCGCCAAAGCTAAGATACAAAGCGCATAT 840  
Oy 841 CCATTGAGAGATGTTCTGAGAGAGTAATAAATTTTGAAGGCTTATACAGGCGACATATC 900  
Db 841 CCATTGAGAGATGTTCTGAGAGAGTAATAAATTTTGAAGGCTTATACAGGCGACATATC 900  
Oy 901 TCGCAATTTCTATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 960  
Db 901 TCGCAATTTCTATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 960  
Oy 961 GTGAGGAGAGAGATGCTAGACAGATATTAAGCAGAGGCGGAGATACAGAGAGAG 1020  
Db 961 GTGAGGAGAGAGATGCTAGACAGATATTAAGCAGAGGCGGAGATACAGAGAGAG 1020  
Oy 1021 ATGCGAAGGATGTTGTTGACAGATTTTGAAGGCTTATACAGGCGACATATC 1080  
Db 1021 ATGCGAAGGATGTTGTTGACAGATTTTGAAGGCTTATACAGGCGACATATC 1080  
Oy 1081 TAGTGCATGCTGATTTGAAGCAGAGATTTCTTTTCAACAGAGGAGTAAGATGCTC 1140  
Db 1081 TAGTGCATGCTGATTTGAAGCAGAGATTTCTTTTCAACAGAGGAGTAAGATGCTC 1140  
Oy 1141 CCATGAAGTGTGATTTTGGTCTCTGATTTTCAATTAAGCAGATTAAGGCTTAAG 1200  
Db 1141 CCATGAAGTGTGATTTTGGTCTCTGATTTTCAATTAAGCAGATTAAGGCTTAAG 1200  
Oy 1201 ATTTTGTGGAATGATATATGTTGGCCCAAGGTTTACACAGATCATATATATG 1260  
Db 1201 ATTTTGTGGAATGATATATGTTGGCCCAAGGTTTACACAGATCATATATATG 1260  
Oy 1261 AACGACATTTGAGATATAGTGTATACATATTCGATGTTGAGAGCTGATCCAACTTTG 1320  
Db 1261 AACGACATTTGAGATATAGTGTATACATATTCGATGTTGAGAGCTGATCCAACTTTG 1320  
Oy 1321 TCTGGCAGACAGAGATATTCGATATTCGATGTTGAGAGCTGATCCAACTTTG 1380  
Db 1321 TCTGGCAGACAGAGATATTCGATATTCGATGTTGAGAGCTGATCCAACTTTG 1380  
Oy 1381 ATGATTCACGCTGCTACAGATATTCGATGTTGAGAGCTGATCCAACTTTG 1440  
Db 1381 ATGATTCACGCTGCTACAGATATTCGATGTTGAGAGCTGATCCAACTTTG 1440  
Oy 1441 ACAAGATTTACGCAAAAGATGACGCTGTTCAACGACTCATCTGTTGGTGGCGAG 1500  
Db 1441 ACAAGATTTACGCAAAAGATGACGCTGTTCAACGACTCATCTGTTGGTGGCGAG 1500

Db 1441 ACAAGATTTACGCAAAAGATGACGCTGTTCAACGACTCATCTGTTGGTGGCGAG 1500  
Oy 1501 ATGAAACAAGCAGATCCGCTGGAGATCTATCTATCTTCAATTAATTAAGCAATACCTCC 1560  
Db 1501 ATGAAACAAGCAGATCCGCTGGAGATCTATCTATCTTCAATTAATTAAGCAATACCTCC 1560  
Oy 1561 GCGCTACACCTTTAAAGGTTGGCATTTAAAGGACATATCCAAAGGCTTTAAAGGAGATG 1620  
Db 1561 GCGCTACACCTTTAAAGGTTGGCATTTAAAGGACATATCCAAAGGCTTTAAAGGAGATG 1620  
Oy 1621 AACTTTGTATCTCAAACTGAGTTTAACTGCTGATGATGATGATGATGATGATGATG 1680  
Db 1621 AACTTTGTATCTCAAACTGAGTTTAACTGCTGATGATGATGATGATGATGATGATG 1680  
Oy 1681 TTGACAACTTTGAGCGGACATACGCGATATTTAACTGATGATGATGATGATGATGATG 1740  
Db 1681 TTGACAACTTTGAGCGGACATACGCGATATTTAACTGATGATGATGATGATGATGATG 1740  
Oy 1741 TTTTGAATTTTTCATGCGGTTGGAGAACCATGCTGATACAGAAAGTACTTTGAAGAGT 1800  
Db 1741 TTTTGAATTTTTCATGCGGTTGGAGAACCATGCTGATACAGAAAGTACTTTGAAGAGT 1800  
Oy 1801 TCTGTGCGGAGCAATGATGCTTACAGCTTGAAGGCTGGAAGGTTGGAGAGAGATG 1860  
Db 1801 TCTGTGCGGAGCAATGATGCTTACAGCTTGAAGGCTGGAAGGTTGGAGAGAGATG 1860  
Oy 1861 CTGGAACGCTTTCCACAAATTTGAACAGAGGCAACGAGTCATATTCAGTTGAGAGAT 1920  
Db 1861 CTGGAACGCTTTCCACAAATTTGAACAGAGGCAACGAGTCATATTCAGTTGAGAGAT 1920  
Oy 1921 TAGCAGAGATTAATTAATCTGCTCAACATCTATCTATCTATCTATCTATCTATCTAT 1980  
Db 1921 TAGCAGAGATTAATTAATCTGCTCAACATCTATCTATCTATCTATCTATCTATCTAT 1980  
Oy 1981 AATCCGATGCAAGCTTAATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2040  
Db 1981 AATCCGATGCAAGCTTAATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2040  
Oy 2041 GGGGCTCAATTAACAGAGCTTAAAGGCTTAAAGGCTTAAAGGCTTAAAGGCTTAAAG 2100  
Db 2041 GGGGCTCAATTAACAGAGCTTAAAGGCTTAAAGGCTTAAAGGCTTAAAGGCTTAAAG 2100  
Oy 2101 CTAATTTTAAAGCGCTGATATGATGATGATGATGATGATGATGATGATGATGATG 2160  
Db 2101 CTAATTTTAAAGCGCTGATATGATGATGATGATGATGATGATGATGATGATGATG 2160  
Oy 2161 CCTGTGCTCAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2220  
Db 2161 CCTGTGCTCAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2220  
Oy 2221 TTTTGTAGAGATTAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2280  
Db 2221 TTTTGTAGAGATTAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2280  
Oy 2281 GAAATATAGTGCATGTTGTTTGGCCAGTAAAGGCTTAAAGGCTTAAAGGCTTAAAG 2340  
Db 2281 GAAATATAGTGCATGTTGTTTGGCCAGTAAAGGCTTAAAGGCTTAAAGGCTTAAAG 2340  
Oy 2341 GAGGCGGGGCGGAGCAGATCCCGCCCTCAGCG 2374  
Db 2341 GAGGCGGGGCGGAGCAGATCCCGCCCTCAGCG 2374

RESULT 2  
US-09-347-801-7  
Sequence 7, Application US/09347801  
Patent No. 6262345  
GENERAL INFORMATION:  
APPLICANT: Allen, Steve  
APPLICANT: Lee, Jia Ming  
TITLE OF INVENTION: Plant protein kinases  
FILE REFERENCE: BB-1171  
CURRENT APPLICATION NUMBER: US/09/347, 801

```

: CURRENT FILING DATE: 1999-07-02
: EARLIER APPLICATION NUMBER: 60/092,438
: EARLIER FILING DATE: July 10, 1998
: NUMBER OF SEQ ID NOS: 23
: SOFTWARE: Microsoft Office 97
: SEQ ID NO 7
: LENGTH: 498
: TYPE: DNA
: ORGANISM: Triticum aestivum
: FEATURE:
: NAME/KEY: unsure
: LOCATION: (498)
: OS-09-347-801-7

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Query Match	8.1%;	Score 193;	DB 4;	Length 498;
Best Local Similarity	67.3%;	Pred. NO. 2.3e-34;		
Matches 332;	Conservative	0;	Mismatches 155;	Indels 6; Gaps 4

QY	972	GAATTCGTACACGAAATTTATGACACAGCGCGGAGATACACAGACGAAATGCCAAACG	1031
Db	2	GAACACTTGTATAAATATTGGCGAGAGGTGCAAAATATTCTGAAGAGATGCCAAAGTT	61
QY	1032	ATTGCTGTACAGATTTTGAGCGCTAGTAGCCCTCTGTCACTCTTCAGGGGGTAGTCATCGT	1091
Db	62	GTTATGCTGCAAAATTTTGAGTGTAGTATCATTTTGGCATCTTCAAGAGTGTTGTTACGG	121
QY	1092	GATTTCGAGCCACAGAAATTTCCCTTTTCAACACAGGATGAAATGTCCTCATGAAAGTG	1151
Db	122	GATCTGAACCAACAGAAATTTTCTATTCTATGAAAGAGAAACCTCACCCCTGAAGTTC	181
QY	1152	ATTGATTTTGGTCTCTGTGATTTTCATTAGACAGATGAAGAGGCTTAAATGATATTTTGA	1211
Db	182	ATAGACTTTTGGCTGTGCTGTGACTTTGAAAGCCAGATGAAGGCTCAAGACATTTGTTGA	241
QY	1212	AGTGCATTTATTTGTCG-CCCAAGGTTTTACACAGATCATTTAATATGAAAGCAGACAT	1270
Db	242	AGTGCATTTATTTGTCGCTCCCGAGGTCCTTACATTCATTTTATGACGAGGAGGATAT	301
QY	1271	-TTGGAATATAGGTGTCAATAACTATCAATCTGCTGTGTCAGTGGCCATATC--TTGGC	1327
Db	302	GTTTGACATTTGGAGTAATATGCTTACATTTTGTGTTTGTGGGAACGCAATTTCCGCGGC	361
QY	1328	ACGAAACGATCAGGAATATCCGATCTGTGTGAGAGCTGATCCCAACTTTGATGATTC	1387
Db	362	ACCCACGAAATCCAGGAATATTTCCAGCTTCCCTTAAACCAAAACCAATTTTGATGAAGC	421
QY	1388	ACCGTGCCTACAGTATTCATCAGCTGAACCTACAGGATTTTGTGAGAGATTTGCAACAAGA	1447
Db	422	CCCAAGGCTTACTCCTCTGCGGAACCAAG--ACTGTTTAAAGAGGTGCTTAAATAAGA	479
QY	1448	TTACCCGCAAAAGA 1460	
Db	480	TTATCCCAAGAGA 492	

RESULT 3  
US-08-464-164-1  
: Sequence 1, Application US/08464164  
: Patent No. 5614195  
:  
: GENERAL INFORMATION:  
:  
: APPLICANT: Tomley, Fiona M.  
: APPLICANT: Dunn, Paul P. J.  
: APPLICANT: Burnstead, Janene M.  
: APPLICANT: Vermuelen, Arno N.  
: TITLE OF INVENTION: Coccidiostats poultry vaccine  
: NUMBER OF SEQUENCES: 10  
: CORRESPONDENCE ADDRESS:  
: ADDRESSEE: Akzo No. 5614195el Patent Department  
: STREET: 1300 Piccard Drive, Suite 206  
: CITY: Rockvillage  
: STATE: Maryland  
: COUNTRY: U.S.A.  
: ZIP: 20850

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION NUMBER: US/08/464,164  
FILING DATE: June 2, 1995  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Gormley, Mary E.  
REGISTRATION NUMBER: 34,409  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (301) 258-5200  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 1400 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA to mRNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
FRAGMENT TYPE: C-terminal  
ORIGINAL SOURCE:  
ORGANISM: Elimeria maxima  
STRAIN: Houghton  
DEVELOPMENTAL STAGE: sporozoite  
IMMEDIATE SOURCE:  
LIBRARY: sporozoite cDNA cloned in Lambda ZAP111  
CLONE: Em70-1  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 1..1368  
-S-08-464-164-1

Query Match	6.48;	Score 153;	DB 1;	Length 1400;
Best Local Similarity	52.48;	Pred. No. 3.3e-25;		
Matches 386;	Conservative 0;	Mismatches 345;	Indels 6;	Gaps 2

QY	759	GCCGTGTCGAAGAGGGCGAGCTCAAGGGACACACCCTGCCGTCAAAATCATGCCCCAAA	818
Dy	25	GTCTTCTTTATGCACAAGGACAAGATTAACAGCAGCGAATTATGCTAAAGATAATTATCTAAA	84
QY	819	GCTAAGATGACCAACGGCAATATCCATTGGAGATGTTCTCTAGAGAAGTAAAAATTTTGAGA	878
Dy	85	CGTCAACTAAACAGAGAAGACAGATTAAGAATTATTATTAAAAAGAAAGTTGAATTATT---	141
QY	879	GCGTTATCAGGGCACATATATCTCTGCAATTCTATGATGCATGTGAGATGCGCTCAAT	938
Dy	142	AAGAAATTAATCATATCTTAATTAATCAAGAAATTAATGAATTTCTTGAGATTAAGAGATAC	201
QY	939	GTCACATTTGTCATGGAATATGTGAGAGAGAGCAATTCCTACACAGAATATTATACCGA	998
Dy	202	TTTTATCTTGTTCACAGAGATATTAACAGAGAGCAATTTATGATGAATTTTATATGA	261
QY	999	GCGGGAGATACACAGAGAGAAGATGCCAAAGCGATTGTTACAGATTTTGAGCGCTACTA	1058
Dy	262	AAA---AGATTTCAGCGCGGAGTCGACGCTCGATATGTACGCAAGGTTCTATCGGGTATA	318
QY	1059	GCCCTTCGTATCTTCAGGGGGTAGNCGAMTCGATTAACCCAGAGAAATTTCCCTTTC	1118
Dy	319	AATTATATGCATGCTATTAATAATAGTTTCATAGAGATTTAACCGCACAGCAATTTATTATTA	378
QY	1119	ACAACCGAGGATGMAATGCTCCCATCGAAGTGTGATGTTTTGGTCTCTGATTTTCAT	1178
Dy	379	GAGATATAAAAAAGAGATCAAAATATACGAATATTGATTTGGGTATCTACACATTTT	438
QY	1179	AGACCAATGAAAGCGCTATATGATATTGTTGCAAGTCATATTATGTTCCCCAGAGGTT	1238
Dy	439	GAGCCCCAAAATAAATAAGAGATTAATAATTCGGAGCCGCTACTCATATGCCCCCTGAGTG	498
QY	1239	TTACACGATCATATAGTATGAGAGCAGACATTTGAGTATAGTGCTCATATACGTCATTT	1298

Db 499 CTGACGAGACATACGATGAGAAATGAGACGTGGTCTACGGGTGTATCTCTATATC 558  
Qy 1299 CTGCTCTGTGGACGTGGCCATTCTGGGACGAGAAATCAGAAATATTCGATCTGTG 1358  
Db 559 CTCTCTCTGTGGTGTCTCTCTCTTAAACGGAGCAAAATGAAATTTCTAAAGAAATG 618  
Qy 1359 TTGAGAGCTATCCCACTTGTGATGATGACCGTGGCTACAGTATCAGCTAAG 1418  
Db 619 GAGAAAGAAATTCACCTTCGATTACCAACAGTGGCGTAAGGTTAGCGCCAGCAAAA 678  
Qy 1419 GATTTTGTGAAGATTTCTGAAACAAGATTACCGCAAGAATGACCGCTGTCAAGCA 1478  
Db 679 GATTTTATAGGAAGATGTAGCATGTATGACCTCAATGCGTATATCAGCAAAAGATGCA 738  
Qy 1479 CTGACTCATCCTTGTT 1495  
Db 739 TTGATCATCATGAT 755

RESULT 4  
US-08-338-057-1

; Sequence 1, Application US/08338057

; Patent No. 5795741

; GENERAL INFORMATION:

; APPLICANT: Tomley, Fiona M.

; APPLICANT: Dunn, Paul P. J.

; APPLICANT: Bumstead, Janene M.

; APPLICANT: Vermulen, Arno N.

; TITLE OF INVENTION: Coccidiosis poultry vaccine

; NUMBER OF SEQUENCES: 10

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Organon Teknika Corporation

; STREET: 1330 Piccard Drive

; CITY: Rockville

; STATE: Maryland

; COUNTRY: U.S.A.

; ZIP: 20850

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patent Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/338,057

; FILING DATE:

; CLASSIFICATION: 435

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: EP 93.309078.9

; FILING DATE: 12-NOV-1993

; ATTORNEY/AGENT INFORMATION:

; NAME: Gormley, Mary E.

; REGISTRATION NUMBER: 34,409

; TELEPHONE: (301) 258-5200

; INFORMATION FOR SEQ ID NO: 1:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 1400 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: double

; TOPOLOGY: linear

; MOLECULE TYPE: CDNA to mRNA

; HYPOTHETICAL: NO

; ANTI-SENSE: NO

; FRAGMENT TYPE: C-terminal

; ORIGINAL SOURCE:

; ORGANISM: Eimeria maxima

; STRAIN: Houghton

; IMMEDIATE SOURCE:

; LIBRARY: sporozoite CDNA cloned in lambda ZAPIT

; CLONE: Em70-1

; FEATURE:

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NAME/KEY: CDS  
LOCATION: 1..1368  
US-08-338-057-1

Query Match 6.4%; Score 153; DB 1; Length 1400;

Best Local Similarity 52.4%; Pred. No. 3.3e-25;

Matches 386; Conservative 0; Mismatches 345; Indels 6; Gaps 2;

Qy 759 GCCCTGCTCAAGAGGCGCGAGTCAAGAGCAGACCGTCCCTCAAGATCATCGCCAA 818  
Db 25 GTCATGTTATGACAGGACAGATACAGCAGCAAGATATGCACTAAAGTAAATCTAA 84  
Qy 819 GCTAGATGACAGGAGCAATATCCATTGAGAGTGTCTGTAAGAAATTTTGA 878  
Db 85 CGTCAAGTAAACAGAGACAGATTAAGATTTTATTTAAAGAGTTGAATTTATTT 141  
Qy 879 GCGTTATCAGGAGCAATATCTGTCAAATCTATGATGATGATGAGAGTGGCTCAAT 938  
Db 142 AAGAAATTAGATCATCTATATCATGAAATATATGATTTCTTGAGATTAAGATATC 201  
Qy 939 GTCTACATTCATGGAATTAATGATGAGAGAGAAATTCCTAGCAAGATTAATGACCA 998  
Db 202 TTTTATCTTGTACAGAAATATATACAGAGAGAGATTAATTTGATGAATTAATGCA 261  
Qy 999 GCGGAGATATACAGAGAGAGATGCAAGGATTTGTACAGATTTTGAGCGCTAGTA 1098  
Db 262 AAA--AGATTCAGCGAGCGAGTGCAGCTGTATAGTACGTACAGCTTATCGGATATA 318  
Qy 1059 GCGTTGTCATCTTCAGGAGGAGTATGATGCTGATTTGAAGCCAGAGAAATTCCTTTC 1118  
Db 319 AATTAATGATCATCTATTAATTAATGATTAATGATTAATTAAGCCAGAGAAATTTATTA 378  
Qy 1119 ACAACAGGAGTAAAGATGCTCCATGAAATGATGATTTGATGATGATTTGATTTTCA 1178  
Db 379 GAGAAATTAAGAAAGATGCAATATGCAATTAATGATTTTGGGATATATACATTTT 438  
Qy 1179 AGACAGATGAAAGGCTTAATGATTTGTTGAAGTGCATATTAATTTGCCAGAGATT 1238  
Db 439 GAGCCCCAAGAAATTAAGATTAATTAATGATTAATTAATGATTAATTAATTAATTA 498  
Qy 1239 TTACAGATCATTAATGATGATGAGAGACAGATTTGAGATTAATGATTAATTAATTA 1298  
Db 499 CTGACGAGACATACGATGAGAAATGCGAGCTGTGCTTACGGGTGTTATCTTATATC 558  
Qy 1299 CTGCTCTGTGGACGTGGCCATTCTGGGACGAAACAGAAATCAGAAATATTCGATCTGTG 1358  
Db 559 CTCTCTCTGTGGTGTCTCTCTCTTAAACGGAGCAAAATGAAATTTCTAAAGAAATG 618  
Qy 1359 TTGAGAGCTATCCCACTTGTGATGATGACCGTGGCTACAGTATCAGCTAAG 1418  
Db 619 GAGAAAGAAATTCACCTTCGATTACCAACAGTGGCGTAAGGTTAGCGCCAGCAAAA 678  
Qy 1419 GATTTTGTGAAGATTTCTGAAACAAGATTACCGCAAGAATGACCGCTGTCAAGCA 1478  
Db 679 GATTTTATAGGAAGATGTAGCATGTATGACCTCAATGCGTATATCAGCAAAAGATGCA 738  
Qy 1479 CTGACTCATCCTTGTT 1495  
Db 739 TTGATCATCATGAT 755

RESULT 5  
US-08-668-416-1

; Sequence 1, Application US/08668416

; Patent No. 5843722

; GENERAL INFORMATION:

; APPLICANT: Tomley, Fiona M.

; APPLICANT: Dunn, Paul P. J.

; APPLICANT: Bumstead, Janene M.

; APPLICANT: Vermulen, Arno N.

; TITLE OF INVENTION: Coccidiosis poultry vaccine

; NUMBER OF SEQUENCES: 10

; CORRESPONDENCE ADDRESS:

;

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;

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;

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;

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ADDRESS: Akzo No. 5843722a1 Patent Department
STREET: 1300 Piccard Drive, Suite 206
CITY: Rockville
STATE: Maryland
COUNTRY: U.S.A.
ZIP: 20850
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/668,416
FILING DATE:
CLASSIFICATION:
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US/08/464,164
FILING DATE: June 2, 1995
ATTORNEY/AGENT INFORMATION:
NAME: Gormley, Mary E.
REGISTRATION NUMBER: 34,409
TELECOMMUNICATION INFORMATION:
TELEPHONE: (301) 258-5200
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1400 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA to mRNA
HYPOTHETICAL: NO
ANTI-SENSE: NO
FRAGMENT TYPE: C-terminal
ORIGINAL SOURCE:
ORGANISM: Elmeria maxima
STRAIN: Houghton
DEVELOPMENTAL STAGE: sporozoite
IMMEDIATE SOURCE:
LIBRARY: sporozoite cDNA cloned in lambda ZAP11
CLONE: Em70-1
FEATURE:
NAME/KEY: CDS
LOCATION: 1..1368
US-08-668-416-1

Query Match          6.4%; Score 153; DB 2; Length 1400;
Best Local Similarity 52.4%; Pred. No. 3.3e-25;
Matches 386; Conservative 0; Mismatches 345; Indels 6; Gaps 2;

OY 759 GCCGTGCTCAGAGGCGGAGTACAGAGGACAGCGCGCGCTCAAGATCATCGCCAAA 818
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 25 GTCATCTTATGACAGACAGACAGATACAGCAGCAGGAATATCACTAAAGTAATCTAAA 84
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 819 GCTAAGATGACAAGCGCAATATCCATTGAGGATGTCGTAGAGAGTAAAAATTTTGAGA 878
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 85 CGTCAGTAAACAGAAACAGATGAATTAATTTAAAGAAAGTTGTAATTT--A 141
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 879 GCGTTATCAGAGGACATATCTCGTCAATTTCTATGATGATGAGATGCCCTCAT 938
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 142 AAGAATTTAATATCTTATATATCATGAATTTATGAATTTCTTGAGGATTAAGATAC 201
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 939 GTCATATTGTCATGAATTTATGTGAGGAGAGAAATTCGTAGACGAATATTAGCCAGA 998
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 202 TTTTATCTTCTTACAGAGATATACAGAGGAGGAATTTATGATGAATTTAATTCGA 261
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 999 GCGGAGATACACAGAGAAATGCCAAAGCATTTGTTGACAGATTTTGACCGTAGTA 1058
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 262 AAA---AGATTACAGCAGGCGGATGCGCTCGTATAGTAGCAGGTTCTATCGGATATA 318
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 1059 GCCTTCGTGATCTTCCAGGGGAGTAGCATCGATTTGAAGCCAGAGATTTCCCTTTC 1118
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 319 AATTATATGATCATGTAATAAATAGTTCAATAGATTTAAAGCCAGAGAAATTTATTATTA 378
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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OY 1119 ACAACGAGGATGAATAATGCTCCCATGAAGTTGATTTGCTCTGTGATTTCAAT 1178
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Db 379 GAGATATAAAAAAGATGCAATATACGAATTTATGATTTGGTTATCTACACATTTT 438
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 1179 ACACCGATGAAGAAGCTTAATGATTTGTTGCAAGTCATATTATTTGCCAGAGTT 1238
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 439 GAGCCCCCAAAAAAATGAAGATTAATAATCGGACCGCTACTACATTCCTCCAGAGTG 498
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 1239 TTACACAGATCATATGATATGGAAGACGACATTTGGAGTATAGGTCTCAATACGTCA 1298
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 499 CTGCACGGAACATGATGAGAAATCCGAGCTGTCTACGGGTATTACCTCTATATC 558
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 1299 CTGCTGTGTGGCAGTCGCGCATCTTGGGACGACAAAGATATATCCGATCTGTG 1358
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 559 CTCTCTCTGCTGCTCTCCATCTTAACGAGCAATGATTTGAATTTCTAAAGAAAGTC 618
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 1359 TTGAGAGCTGATCCCACTTTGATGATTCACCGCTGCTACAGTATACCTGAGCTAAG 1418
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 619 GAGAAAGAAATTCACCTTCGATTTACCAAGTGGCGCTAAGGTTAGCGAGCCAGCAAA 678
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 1419 GATTTGTGAAGATTTCTGAAACAAGATTAACCGAAAAAGATGACCGCTTCAAGCA 1478
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 679 GATTTAATTAGGAAGATGTTAGCATATGATCCCTCAATGCGTATATACCAAAAGATGCA 738
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
OY 1479 CTGACTCATCTTGGTT 1495
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 739 TTAGATCATTCATGAT 755
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RESULT 6
US-07-951-715A-20
; Sequence 20, Application US/07951715A
; Patent No. 5625136
; GENERAL INFORMATION:
; APPLICANT: Koziel, Michael G.
; APPLICANT: Desai, Nalini M.
; APPLICANT: Lewis, Kelly S.
; APPLICANT: Kramer, Vance C.
; APPLICANT: Warren, Gregory W.
; APPLICANT: Evola, Stephen V.
; APPLICANT: Crossland, Lyle D.
; APPLICANT: Wright, Martha S.
; APPLICANT: Merlin, Ellis J.
; APPLICANT: Launis, Karen L.
; APPLICANT: Rothstein, Steven J.
; APPLICANT: Bowman, Cindy G.
; APPLICANT: Dawson, John L.
; APPLICANT: Dunder, Erik M.
; APPLICANT: Pace, Gary M.
; APPLICANT: Suttie, Janet L.
; TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED
; TITLE OF INVENTION: INSECTICIDAL ACTIVITY IN MAIZE
; NUMBER OF SEQUENCES: 94
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: CIBA-GEIGY Corporation
; STREET: 7 Skyline Drive
; CITY: Hawthorne
; STATE: New York
; COUNTRY: USA
; ZIP: 10532
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.30B
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/951,715A
; FILING DATE: 25-SEP-1992
; CLASSIFICATION: 800
; PRIORITY APPLICATION DATA:
; APPLICATION NUMBER: US 07/772,027
; FILING DATE: 04-OCT-1991
; ATTORNEY/AGENT INFORMATION:
```

Query Match	6.4%	Score 151.6;	DB 1;	Length 1349;
Best Local Similarity	53.9%	Pred. No. 6.7e-25;		
Matches 335; Conservative	0;	Mismatches 284;	Indels 3;	Caps 1

Query Match	Best Local Similarity	6.4%	Score 151.6	DP 1	Length 1349
Matches 335	Conservative 0	Mismatches 284	Indels 3	Gaps	
QY	883	TATCAGGACAAATATATCTCGTCAAAATTTATATGATGATGATGAGATAGGCTCAATGTCT	942		
Db	19	TCCTCCGGCCAGCCCAACGTGTGGGGCTCCGGCCGGCTGACGAGAAAGCAAGCGTCC	78		
QY	943	ACATTGTCTAGTAATATATGTAGGGAGAGAAATTGCATAGCAAAATATTAAGCCAGAGCG	1007		
Db	79	ACCTCGTATGTAAGTGTGCGCGGGGGGGGCTCTTGACCGCATATCGCCCGGGGCC	138		
QY	1003	GGAGATPACACAGAGCAAGATGCCAAAGCATTTGTTGTACAGATTTTGAGCTAGTAGCCT	1062		
Db	139	AG---TACACGAGCGCGCGCCCGGAGCGTGGCGGCGCATCGTAGATCTGTACAA	195		
QY	1063	TCTGTACTCTTCAGGGGGTATGATCTGTATTTGAAGCCAGAAATTTCTTTTCACAA	1122		
Db	196	CTTGCCACTCCATGGGGGTGTATGACGGGACATCAAGCCCGAAGCTTCTGTGCTCA	255		
QY	1123	CCAGGGATGAAATGCTCCATGAAATGATTAATTTGGTCTCTGTATTCATTAGAC	1182		
Db	256	GCAAAGCAGAGAGCGCGCGCTCAAGGCCACGCACTTGGGCTCTCTCTTCTTCAAG	315		
QY	1183	CAGATGAAGGCTTAATGATATTTGTTGGAAGTCCATATATATGTTGGCCCGAGGTTTAC	1242		
Db	316	AGGGGACTCTCTAGGAGACATCTCGCGACGCCCTACTACATCGCGCCGAGGTGTCA	375		
QY	1243	ACAGATCAATATAGTATGGAAGACAGACATTTGGGATTAAGTGTCAACGTACATCTGC	1302		
Db	376	AGAGGAATACGGCCGGAGCCGACATCTGAGACCTCGGGCTCATGCTTACATCTTCC	435		
QY	1303	TCTGTGGCAGTGGCCATTTGTGGGCGACGAACAGAAATCAGGAATATTCGATCTGTGTTGA	1362		
Db	436	TGCGCGGGGTGCTCCCTCTTGCGGAGAGAACGAAAGGACTCTTCAACGCGATCTGCG	495		
QY	1363	GAGCTGATCCCAACTTTGATGATTCACCGGTGGCTTACATCACTAAGCTAAGATTT	1422		
Db	496	GAGGCAAGCTTTGACCTCTCCAGCGACCCATGTGCGACATCTTCGCGGAGACCAGAGTGC	555		
QY	1423	TTGTGAAGATTTTGTAAACMAAGATTTACCGCAAAAAGATGACCGCTTTGCAACACATG	1482		
Db	556	TGCTGAAAGAGATGTCTACATCAACACCCCAAGAGGGGTGTCAGGCGCTTCCAGGTCTCTCA	615		
QY	1483	CTCATCTTGGTTGCGAGATGA	1504		
Db	616	ATTCACCATGTATCAAGAAGA	637		

```

Sequence 20, Application US/08459448A
Patent No. 5859336
GENERAL INFORMATION:
APPLICANT: KOZIEL, Michael G.
APPLICANT: Desai, Nalini M.
APPLICANT: Lewis, Kelly S.
APPLICANT: Kramer, Vance C.
APPLICANT: Warren, Gregory W.
APPLICANT: Evola, Stephen V.
APPLICANT: Crossland, Lytle D.
APPLICANT: Wright, Martha S.
APPLICANT: Merlin, Ellis J.
APPLICANT: Launis, Karen L.
APPLICANT: Rothstein, Steven J.
APPLICANT: Bowman, Cindy G.
APPLICANT: Dawson, John L.
APPLICANT: Dunder, Erik M.
APPLICANT: Pace, Gary M.
APPLICANT: Suttle, Janet L.
TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED
NUMBER OF SEQUENCES: 94
INSECTICIDAL ACTIVITY IN MAIZE
CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 5859336artis Corporation
STREET: Patent & Trademark Dept., 520 White Plains
SPEED: Rd., POB 2005
CITY: Tarrytown
STATE: New York
COUNTRY: USA
ZIP: 10591-9005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/459,448A
FILING DATE: 02-JUN-1995
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/951,715
FILING DATE: 25-SEP-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/772,027
FILING DATE: 04-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: Pace, Gary M.
REGISTRATION NUMBER: 40403
REFERENCE/DOCKET NUMBER: CGC 1577/CIP/DIVA
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919)541-8582
TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO: 20:
SEQUENCE CHARACTERISTICS:
LENGTH: 1349 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
HYPOTHETICAL: NO
FEATURE:
NAME/KEY: CDS
LOCATION: 3..1226
OTHER INFORMATION:
OTHER INFORMATION: pollen-specific calcium dependent protein kinase gene as
disclosed in Figure 30."
US-08-459-448A-20

```

RESULT 7  
US-08-459-448A-20

Query Match	6.48%	Score 151.6;	DB 2;	Length 1349;
Best Local Similarity	53.9%	Pred. No. 6.7e-25;		
Matches 335;	Conservative 0;	Mismatches 284;	Indels 3;	Gaps 1;

```

Db      19  TCTCCGGCCAGCCCAAGTGTGGGCTCCGGCGCGTACGAGCAAGCAGAGCGTGC 78
QY      943  ACATTTCATGATATATATGAGGAGAGAAATTCAGACAAATATTAAGCCAGAGCG 1002
Db      79  ACCTCGTCATGAGGCTGTGGCGGGAGGTCTTCGCCCATCATCGCCGGGGCTC 138
QY      1003 GGAGATACACAGAGAAATGCCAAGCGATGTGTACAGATTTTGAGGAGTACGCT 1062
Db      139  AG---TACACGGAGCGCGCGCGCGAGCTGCGCGCCATCGACATGTGCACA 195
QY      1063 TCTGTATCTTCAGGGGAGTAGTCATCGTGAATTTGAAGCCAGAGAAATTCCTTTACAA 1122
Db      196  CCGTGCACATCCATGGGGGTGATGTCACCGGAGCATCAAGCCGAGAACTTCCTCTCTCA 255
QY      1123 CCAGGATGAATAATGCTCCCATGAATGTTATTTTGGTCTCTCTGATTTTATTAGAC 1182
Db      256  GCAAGGACGAGGAGCGCGCTCAAGGCCACGACTTCGCGCTCTCTCTCAAGG 315
QY      1183 CAGATGAAGGCTTAATGATATGTGGAAGTGCATATTATTGTGCCCGCAGAGTTTAC 1242
Db      316  AGGGCGACGCTCTCAGGAGCATGTGCGCAGCCCTACTACATCGCGCCGAGAGTCTCA 375
QY      1243 ACAGATCATATAGTATGGAAGACAGACATTTGAGTATAGTGTCAATACGATTCCTGC 1302
Db      376  AGAGGAATGACGCGCGGAGCGCATCTCGAGCGTCCGCTCATGCTCTACATCTTCC 435
QY      1303 TCTGTGGCATCGGCCATCTCTGGGCAAGAACATCAGAAATTCGATCTGTGTGA 1362
Db      436  TCCCGCGCGCTCTCTCTGGGCAAGAACGCGCATCTTCCCGCATCTCTGC 495
QY      1363 GACCTATCCCACTTGTGATGATTTACCGTGGCTACAGTATAGCTGAAGTAAAGATT 1422
Db      496  GAGGCGACGCTGACCTCTCCAGCGACATGCGCACACATCTCGCGGAGCCAAAGATC 555
QY      1423 TTGTGAAGATTTCTGAACAAAGATTACCGCAAAAGATGACCGGTGTTCAGACATGA 1482
Db      556  TCTCAAGAAAGATGCTCAACATCAACCCCAAGAGCGGCTCAGGGTTCAGGTCTCTCA 615
QY      1483 CTCATCTCTGTTGGCAGATGA 1504
Db      616  ATCACCATGATCAAGAAGA 637

```

## RESULT 8

Sequence 20, Application US/08459595A  
Patent No. 6018104

## GENERAL INFORMATION:

APPLICANT: Koziel, Michael G.  
APPLICANT: Desai, Nalini M.  
APPLICANT: Lewis, Kelly S.  
APPLICANT: Kramer, Vance C.  
APPLICANT: Warren, Gregory W.  
APPLICANT: Evola, Stephen V.  
APPLICANT: Crossland, Lyle D.  
APPLICANT: Wright, Martha S.  
APPLICANT: Merlino, Ellis J.  
APPLICANT: Launis, Karen L.  
APPLICANT: Rothstein, Steven J.  
APPLICANT: Bowman, Cindy G.  
APPLICANT: Dawson, John L.  
APPLICANT: Dunder, Erik M.  
APPLICANT: Pace, Gary M.  
APPLICANT: Suttie, Janet L.  
TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED  
TITLE OF INVENTION: INSECTICIDAL ACTIVITY IN MAIZE  
NUMBER OF SEQUENCES: 94  
CORRESPONDENCE ADDRESS:

ADDRESSEE: NO. 6018104artis Corporation  
STREET: Patent & Trademark Dept., 520 White Plains  
STREET: Rd., POB 2005  
CITY: Tarrytown

```

STATE: New York
COUNTRY: USA
ZIP: 10591-9005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/459,595A
FILING DATE: 02-JUN-1995
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/951,715
FILING DATE: 25-SEP-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/772,027
FILING DATE: 04-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: Pace, Gary M.
REGISTRATION NUMBER: 40403
REFERENCE/DOCKET NUMBER: CGC 1577/CIP/DIV3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919)541-8582
TELEFAX: (919)541-8689
INFORMATION FOR SEQ ID NO: 20:
SEQUENCE CHARACTERISTICS:
LENGTH: 1349 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
HYPOTHETICAL: NO
FEATURE:
NAME/KEY: CDS
LOCATION: 3..1226
OTHER INFORMATION: /note="cDNA sequence for maize
OTHER INFORMATION: pollen-specific calcium dependent protein kinase gene as
OTHER INFORMATION: disclosed in Figure 30."
US-08-459-595A-20

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Query Match 6.4%; Score 151.6; DB 3; Length 1349;

Best Local Similarity 53.9%; Pred. No. 6.7e-25;

Matches 335; Conservative 0; Mismatches 284; Indels 3; Gaps 1;

```

QY      883  TATCAGGCGCAATTAATCTGTCATTAATGTATGATGATGAGATGGCTTCATGTCT 942
Db      19  TCTCCGGCCAGCCCAAGTGTGGGCTCCGGCGCGTACGAGCAAGCAGAGCGTGC 78
QY      943  ACATTTCATGATATATGAGGAGAGAAATTCAGACAAATATTAAGCCAGAGCG 1002
Db      79  ACCTCGTCATGAGGCTGTGGCGGGAGGCTCTTCGACCCCATCATCGCCGGGGCTC 138
QY      1003 GGAGATACACAGAGAAATGCCAAGCGATGTGTACAGATTTTGAGGAGTACGCT 1062
Db      139  AG---TACACGGAGCGCGCGCGGAGCTGTGGCGCCATCGTGCAGATGTGCACA 195
QY      1063 TCTGTATCTTCAGGGGAGTAGTCATCGTGAATTTGAAGCCAGAGAAATTCCTTTACAA 1122
Db      196  CCGTGCACATCCATGGGGGTGATGTCACCGGAGCATCAAGCCCGAGAACTTCCTCTCTCA 255
QY      1123 CCAGGATGAATAATGCTCCCATGAAGTGTGATTTTGGTCTCTCTGATTTTATTAGAC 1182
Db      256  GCAAGGACGAGGAGCGCGCTCAAGGCCACGACTTCGCGCTCTCTCTTTCAAAG 315
QY      1183 CAGATGAAGGCTTAATGATATGTGGAAGTGCATATTATTGTGCCCGCAGAGTTTAC 1242
Db      316  AGGGCGACGCTCTCAGGAGCATGTGCGCAGCCCTACTACATCGCGCCGAGAGTCTCA 375
QY      1243 ACAGATCATATAGTATGGAAGACAGACATTTGAGTATAGTGTCAATACGATTCCTGC 1302
Db      376  AGAGGAATGACGCGCGGAGCGCATCTCGAGCGTCCGCTCATGCTCTACATCTTCC 435

```

QY 1303 TCTGTGCGAGTTCGGCCATCTGGGCAAGAACATCAGATATTTCCATCTGTCTTGA 1362  
 Db 436 TCGCCGGCGTCCCTCCCTTTTGGGCAAGAGAACGACATCTTCCACCGGCTCTGC 495  
 QY 1363 GAGCTGATCCCACTTGTGATGATTCACCGTGCCTACAGTATCAGCTGAAGCTAAGATT 1422  
 Db 496 GAGGGCGAGCTTGACCTCTCCAGCGAGCCATGGCCACATCTCCCGGAGCCAAAGATC 555  
 QY 1423 TTGTGAAGAGATTCTGACCAAGATTACCGCAAAAGATGACCGCTGTCAAGCACTGA 1482  
 Db 556 TCCTCAAGAGATGCTCAACATCAACCCCAAGAGGCGCTCACGGCTTCCAGTCTCA 615  
 QY 1483 CTCATCTTGGTTGCGAGATGA 1504  
 Db 616 ATCACCATGATCAAGAAGA 637

## RESULT 9

US-08-459-504B-20  
 Sequence 20, Application US/08459504B

## GENERAL INFORMATION:

APPLICANT: Kozziel, Michael G.  
 APPLICANT: Desai, Nalini M.

APPLICANT: Lewis, Kelly S.  
 APPLICANT: Kramer, Vance C.

APPLICANT: Warren, Gregory W.  
 APPLICANT: Evola, Stephen V.

APPLICANT: Crossland, Lyle D.  
 APPLICANT: Wright, Martha S.

APPLICANT: Merrill, Ellis J.  
 APPLICANT: Launis, Karen L.

APPLICANT: Rotenstein, Steven J.  
 APPLICANT: Bowman, Cindy G.

APPLICANT: Dawson, John L.  
 APPLICANT: Dunder, Erik M.

APPLICANT: Pace, Gary M.  
 APPLICANT: Suttle, Janet L.

TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED  
 NUMBER OF SEQUENCES: 94

CORRESPONDENCE ADDRESS:  
 ADDRESSEE: No. 6075185artis Corporation

STREET: 3054 Cornwallis Road  
 CITY: Research Triangle Park

STATE: NC  
 COUNTRY: USA

ZIP: 27709  
 COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: Patent Release #1.0, Version #1.30

CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/459,504B

FILING DATE:  
 CLASSIFICATION:

PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 08/459,595

FILING DATE: 02-JUN-1995  
 APPLICATION NUMBER: US 07/951,715

FILING DATE: 25-SEP-1992  
 PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/772,027  
 FILING DATE: 04-OCT-1991

ATTORNEY/AGENT INFORMATION:  
 NAME: Weigs, J. Timothy

REGISTRATION NUMBER: 38,241  
 REFERENCE/DOCKET NUMBER: CG1577/CIP/DIV

TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (919)541-8587

TELEFAX: (919)541-8689  
 INFORMATION FOR SEQ ID NO: 20:

SEQUENCE CHARACTERISTICS:  
 LENGTH: 1349 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: single  
 TOPOLOGY: linear  
 MOLECULE TYPE: cDNA  
 HYPOTHETICAL: NO  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: 3..1226  
 OTHER INFORMATION: /note="cDNA sequence for maize  
 OTHER INFORMATION: pollen-specific calcium dependent protein kinase gene as  
 OTHER INFORMATION: disclosed in Figure 30."  
 US-08-459-504B-20

Query Match 6.4%; Score 151.6; DB 3; Length 1349;  
 Best Local Similarity 53.9%; Pred. No. 6.7e-25;

Matches 335; Conservative 0; Mismatches 284; Indels 3; Gaps 1;

QY 883 TATCAGGCGACAAATTAATCTGCAATTTCTATGATGATGAGGATGGCCATCTCT 942  
 Db 19 TCTCCGGCCAGCCCAACGCTGTGTGGCTCCGGCGCGGTACAGAGACAGACCTGC 78  
 QY 943 ACATTTGATGATTAATTAATGAGGAGAGAAATTCATACAGAAATTAATTAAGCCAGAGCG 1002  
 Db 79 ACCTGCTCATGAGAGCTGTGCGGGGGGAGAGCTCTTGACCGCATATTCGCCGGGCGC 138  
 QY 1003 GCAGATACACAG 1062  
 Db 139 AG---TACACGAG 195  
 QY 1063 TCTGTATCTTCAAG 1122  
 Db 196 CCGTCCACTCCATGAGGAG 255  
 QY 1123 CCAGGATGAAGAAATGCTCCCATGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1182  
 Db 256 GCAAG 315  
 QY 1183 CAGATGAAG 1242  
 Db 316 AGGCGAG 375  
 QY 1243 ACAGATCATATGATTAATTAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1302  
 Db 376 AG 435  
 QY 1303 TCTGTGCGAGTCCGCAATTTGCGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1362  
 Db 436 TCGCCGGCGTCCCTCCCTTTGGGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 495  
 QY 1363 GAGCTGATCCCACTTGTGATGATTCACCGTGCCTACAGTATCAGCTGAAGCTAAGATT 1422  
 Db 496 GAGGGCGAGCTTGACCTCTCCAGCGAGCCATGGCCACATCTCGCGGAGCCAAAGATC 555  
 QY 1423 TTGTGAAGAGATTCTGACCAAGATTACCGCAAAAGATGACCGCTGTCAAGCACTGA 1482  
 Db 556 TCCTCAAGAGATGCTCAACATCAACCCCAAGAGGCGCTCACGGCTTCCAGTCTCA 615  
 QY 1483 CTCATCTTGGTTGCGAGATGA 1504  
 Db 616 ATCACCATGATCAAGAAGA 637

## RESULT 10

US-08-459-444-20  
 Sequence 0, Application US/08459444A

Patent No. 6121014  
 GENERAL INFORMATION:

APPLICANT: Kozziel, Michael G.  
 Desai, Nalini M.

Lewis, Kelly S.  
 Kramer, Vance C.



Warren, Gregory W.  
Evola, Stephen V.  
Crossland, Lyle D.  
Wright, Martha S.  
Merlin, Ellis J.  
Lauais, Karen L.

TITLE OF INVENTION: METHOD FOR PRODUCING A PLANT-OPTIMIZED  
NUCLEIC ACID CODING SEQUENCE

NUMBER OF SEQUENCES: 94  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: No. 6121014artis Agribusiness Biotechnology Research, Inc.  
STREET: 3054 Cornwallis Road  
CITY: Research Triangle Park  
STATE: NC  
COUNTRY: USA  
ZIP: 27709

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/459,444A  
FILING DATE: 02-Jun-1995  
CLASSIFICATION: <Unknown>  
PRIORITY APPLICATION DATA:  
APPLICATION NUMBER: US 07/951,715  
FILING DATE: 25-SEP-1992  
APPLICATION NUMBER: US 07/772,027  
FILING DATE: 04-OCT-1991

ATTORNEY/AGENT INFORMATION:  
NAME: Meigs, J. Timothy  
REGISTRATION NUMBER: 38,241  
REFERENCE/DOCKET NUMBER: S-18805/PL/CGL1577/CIP/DIV6  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (919)541-8587  
TELEFAX: (919)541-8689

INFORMATION FOR SEQ ID NO: /note= "cdna sequence for maize  
pollen-specific calcium dependent protein kinase gene as  
disclosed in Figure 30."

SEQUENCE CHARACTERISTICS:  
LENGTH: 1349 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA  
HYPOTHETICAL: NO  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 3..1226  
SEQUENCE DESCRIPTION: SEQ ID NO: 20:  
US-08-459-444-20

Query Match 6.4%; Score 151.6; DB 3; Length 1349;  
Best Local Similarity 53.9%; Pred.No. 6.7e-25;  
Matches 335; Conservative 0; Mismatches 284; Indels 3; Gaps 1;

QY 883 TATCAGGCGCATATATCTGCTCAATTTCTATATGATGATGGCCTCAATGTCT 942  
DB 19 TCTCCGCGCCAGCCCAAGCTGTGGGCTCGCGCGGTACGAGACAAAGAGCTGC 78  
QY 943 ACATTTGATGATATGTGAGGAGAGAGATTGCTAGACAGATATTAGCCAGAGCG 1002  
DB 79 ACCTGCTGATGAGCTGTGGCGGGGAGAGCTTTTCAGCCCATCATGCCCCGGGGCC 138  
QY 1003 GGAGATACAGAGAGAGATGCAAGCGATTGTTAGATTTTGGCGGTAGAGCTT 1062  
DB 139 AG--TACAGCGAGCGCGCGCGAGCTGTGCGCGCCATCGAGCATGTGACACA 195  
QY 1063 TCTGTATCTTTCAGGGGAGTGTGATTTGAAGCCAGAGATTTCTTTTCAAA 1122  
DB 196 CCGGCATCTCATGAGGGGTGATGTCACCGGAGCATCAAGCCGAGAACTTCTGCTGCTCA 255

QY 1123 CCAGGATGAAATGCTCCCATGAGTTGATTTTGGTCTCTGTGATTTTCATTAGAC 1182  
DB 256 GCAGGAGCAGAGAGCGGCCCTCAAGCCAGCAGCTTCGGCTCTCGCTTTTCAAG 315  
QY 1183 CAGATGAAGCCTTAATGATATTGTTGGAAGTGCATATTATGTTGCCAGAGCTTTTAC 1242  
DB 316 AGGCGAGCTGCTCAGGAGACATGCTGCGCAGCCCTACTACATCGCGCCGAGGTCTCA 375  
QY 1243 ACAGATCATATATGATGAGAGACATTGAGTATAGTGTGATACACTATATCTGC 1302  
DB 376 AGAGGAGTACGCCCCGAGGCGGACATCTGAGCGCTGATCTCTACATCTTTC 435  
QY 1303 TCTGTGGCAGTCCGCAATTTCTGGGCGACGAACAGATCAGATATTCGATCTGTGTA 1362  
DB 436 TCGCCGCGCTGCTCTCTTCTGGGCGAGAGACAGAAAGGCACTTTCACCGCATCTGC 495  
QY 1363 GAGCTGATCCCACTTTGATGATTCACCGTGTACAGTACAGTGAAGTGAAGTAT 1422  
DB 496 GAGGCGAGCTTGACCTCTCCAGCGACCATGCGCCACACATCTGCGCGGAGCCAGGATC 555  
QY 1423 TTGTGAAGATTTTCGAACAAAGATTACCGCAAAAGATGACCGCTGTTCAGACACTGA 1482  
DB 556 TCGTCAAGAGATCTCAACATCAACCCCAAGAGGCGCTCAGGCGTTCAGAGTCTCA 615  
QY 1483 CTCATCCTTGTTGCGAGATGA 1504  
DB 616 ATCACCATGATCAAGAAGA 637

RESULT 11  
US-09-547-422-20  
Sequence 0, Application US/09547422  
Patent No. 6320100  
GENERAL INFORMATION:  
APPLICANT: Koziel, Michael G.  
Desai, Nalin M.  
Lewis, Kelly S.  
Kramer, Vance C.  
Warren, Gregory W.  
Evola, Stephen V.  
Crossland, Lyle D.  
Wright, Martha S.  
Merlin, Ellis J.  
Lauais, Karen L.

TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED  
INSECTICIDAL ACTIVITY IN MAIZE

NUMBER OF SEQUENCES: 94  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: No. 6320100artis Agribusiness Biotechnology Research, Inc.  
STREET: 3054 Cornwallis Road  
CITY: Research Triangle Park  
STATE: NC  
COUNTRY: USA  
ZIP: 27709

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/547,422  
FILING DATE: 11-Apr-2000  
CLASSIFICATION: <Unknown>  
PRIORITY APPLICATION DATA:  
APPLICATION NUMBER: US 08/459,595  
FILING DATE: 02-JUN-1995  
APPLICATION NUMBER: US 07/951,715  
FILING DATE: 25-SEP-1992  
APPLICATION NUMBER: US 07/772,027  
FILING DATE: 04-OCT-1991

ATTORNEY/AGENT INFORMATION:  
NAME: Meigs, J. Timothy  
REGISTRATION NUMBER: 38,241

```

? REFERENCE/DOCKET NUMBER: S-18805H
? TELECOMMUNICATION INFORMATION:
? TELEPHONE: (919)541-8587
? TELEFAX: (919)541-8689
? INFORMATION FOR SEQ ID NO: /note- "cDNA sequence for maize
? pollen-specific calcium dependent protein kinase gene as
? disclosed in Figure 30."
?
? SEQUENCE CHARACTERISTICS:
? LENGTH: 1349 base pairs
? TYPE: nucleic acid
? STRANDEDNESS: single
? TOPOLOGY: linear
? MOLECULE TYPE: cDNA
? HYPOTHEetical: NO
? FEATURE:
? NAME/KEY: CDS
? LOCATION: 3..1226
? SEQUENCE DESCRIPTION: SEQ ID NO: 20:
?
US-09-547-422-20

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Query Match          6.4%; Score 151.6; DB 4; Length 1349;
Best Local Similarity 53.9%; Pred. No. 6.7e-25;
Matches 335; Conservative 0; Mismatches 284; Indels 3; Gaps 1;

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QY 883 TATCAGGCGACATATATCTCGTCAAAATCTATGATCATGTGAGATGCGCTCAATGTCT 942
DB 19 TCTCGGCGCCAGCCCAACGTGTGGGCTCCCGCGGCTACGAGACAAAGCAGCGCTGC 78
QY 943 ACATTGTCATGGAATTTATGTGAGGAGGAGAAATGCTAGACAGAAATATTAGCCAGAGCGG 1002
DB 79 ACCCTGCTATGAGAGCTGTGCGCGGCGGAGCTCTTGACCGCATATCGCCCGCGGCGC 138
QY 1003 GGAGTACACAGAGAGAGATGCCAAAGCATTTGTACAGATTTTGAAGCGTATGACCT 1062
DB 139 AG--TACACGAGGCGCGCGCGCGAGCTGCTGCGGCGCATGTCGAATGCTGCACA 195
QY 1063 TCTGTCATCTTCAGGGGGTAGTGCATGCTGATTTGAAGCCAGAGAAATTTCCTTTCAAA 1122
DB 196 CCTGCGACTCCATGGGGGTGATGATGACCGGACATCAAGCCGAGAACTTCTGCTGCTCA 255
QY 1123 CCAGGAGTAAATGCTCCCATGAGTTGATTTGCTCTGCTGATTTCAATTTAGAC 1182
DB 256 GCAAGGAGAGAGAGCGCGCGCTCAAGGCCACCGACTTCGCGCTCTCCGTTTCAAGG 315
QY 1183 CAGATGAAGGCTTAATGATTTTGGAAAGTGCATATATTGTTGCCCGCAGAGTTTAC 1242
DB 316 AGGCGAGCTGCTCAGGAGACATCTCGCAGCGCTACTACATGCGCGCCGAGGTGCTCA 375
QY 1243 ACAGATCATATAGTATGAGAGACAGACATTTGAGTATAGGTGTCATACATCTCTGC 1302
DB 376 AGAGAGAGTACGCGCGGAGCGGAGCATCTGAGCGCTGCGGCTGATGCTTACATCTTCC 435
QY 1303 TCTGTGGCAGTGGCCATCTGTGGGCAAGAACATCAGAAATATTCGATCTGTGTGA 1362
DB 436 TCGCGCGCGCTGCTCTCTTGTGGGAGAGAAAGCAAGACGCAATCTTACCGCATCTTCC 495
QY 1363 GAGTGTATCCCACTTTGATGATTTACCCGCGCTACAGTATCAGCTGAAGCTAAGATT 1422
DB 496 GAGGGCAGCTTGACCTCTCCAGCGAGCCATAGGCCACACATCTCGCGGAGCAAGAGATC 555
QY 1423 TTGTGAAGATTTTGAACAAAGATTACCGCAAAAGATGACCGGTGTTCAAGACCTGA 1482
DB 556 TCGTCAAGAGATGCTCAACATCAACCCCAAGAGGCGCTCACGGCTTCCAGGCTCTCA 615
QY 1483 CTGATCTCTTGTTGGCAGATGA 1504
DB 616 ATCCACCATGATGATCAAAAGA 637

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RESULT 12
US-09-347-801-5
; Sequence 5, Application US/09347801
; Patent No. 6262345

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9

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? GENERAL INFORMATION:
? APPLICANT: Allen, Steve
? APPLICANT: Lee, Jian Ming
? TITLE OF INVENTION: Plant Protein Kinases
? FILE REFERENCE: BB-1171
? CURRENT APPLICATION NUMBER: US/09/347,801
? EARLIER FILING DATE: 1999-07-02
? EARLIER APPLICATION NUMBER: 60/092,438
? NUMBER OF SEQ ID NOS: 23
? SOFTWARE: Microsoft Office 97
? SEQ ID NO 5
? LENGTH: 568
? TYPE: DNA
? ORGANISM: Glycine max
? FEATURE:
? NAME/KEY: unsure
? LOCATION: (11)
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? LOCATION: (568)
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US-09-347-801-5

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Query Match          6.3%; Score 150.6; DB 4; Length 568;
Best Local Similarity 59.6%; Pred. No. 7.7e-25;
Matches 329; Conservative 0; Mismatches 176; Indels 47; Gaps 3;

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QY 525 CCGGCGCAGCATTAAGGCCAGCGCTGCGCAAGAGCGTGGGTGGGGAGGCCCAAGAA 584
DB 115 CCGGCGCAGCATTTGCGCGCTGCTGCGCCGCGCAGCGATTTCCGTCAAGCCGAAGAA 174
QY 585 GGGAGGATACCGGAGAGGAGGCGGTGGCGCTGCGCGCGCGCTGAGAGGGCGCGCGAT 644
DB 175 GCTTCATATACCGGAGGCGCAGC----- 195
QY 645 GGGGCGGAGAGGAGGCCCATTTGGACAAGACGTTGCGGTTTTCGAAGAACTTGGCGCG 704
DB 196 -----NAGTGTGAGCTCGCGCTCGACAAGAGCTTTGGCTTGTGTAAGCAGTTTTCGCT 249
QY 705 AAGTACGAGCTCGGGAAGAGAGTGGGAGGCGCCACTTTCGAGACACTTGTCCGCGCTC 764
DB 250 CATTATGAGCTCACTGACGAAGAGGCGCGGCGCATTTTGGGTATACCTGCTCCGCTAAA 309
QY 765 GTCAAGAGGCGGAGTCAAGAGGACAGACCGCTGCGCGCTCAAGATCAATCGCCAAAGCTAAG 824

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Db      310 GGCAGAAAGGGCGCTTCAAGGCTTAAATGTTGCTGTCAGAAATCATTCCTAAAGCCAAAG 369
QY      825 ATGACAAAGCAATATCATATGAGATGTTGCTAGAGAAAGTAAATTTGAGAGCGCTTA 884
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Db      370 ATGACCAACAGCAATTTCTATAGAGATGTAAGAGAGAAAGTAAATTTGAGAGCGCTTA 429
QY      885 TCAGGGCACAATATTCCTCAATTCATATGATGATGAGATGAGAGTGGCTCAATGCTTAC 944
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QY      945 ATTTCATGGAATTTATGTAGAGAGAGAAATTTCTATGACAGAAATTTACCCAGAGCGCGG 1004
      || || |||| || || || || || || || || || || || || || || || || || || ||
Db      489 ATAGT-TTGAGCTTGTCAGAGGAGGCGGAATTCCTAGATAGATCTTCCGGGCTGGAA 547
QY      1005 AGATACACAGAG 1016
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Db      548 AGTACTCTGNAG 559

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## RESULT 13

US-08-459-448A-26  
Sequence 26, Application US/08459448A

Patent No. 5859336

GENERAL INFORMATION:

APPLICANT: Kozziel, Michael G.

APPLICANT: Desai, Nalin M.

APPLICANT: Lewis, Kelly S.

APPLICANT: Kramer, Vance C.

APPLICANT: Warren, Gregory W.

APPLICANT: Evola, Stephen V.

APPLICANT: Crossland, Lyle D.

APPLICANT: Wright, Marsha S.

APPLICANT: Merlin, Ellis J.

APPLICANT: Launis, Karen L.

APPLICANT: Rothstein, Steven J.

APPLICANT: Bowman, Cindy G.

APPLICANT: Dawson, John L.

APPLICANT: Dunder, Erik M.

APPLICANT: Pace, Gary M.

APPLICANT: Suttie, Janet L.

TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED

NUMBER OF SEQUENCES: 94

CORRESPONDENCE ADDRESS:

ADDRESSEE: No. 5859336artis Corporation

STREET: Patent & Trademark Dept., 520 White Plains

STREET: Rd., POB 2005

CITY: Tarrytown

STATE: New York

COUNTRY: USA

ZIP: 10591-9005

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/459,448A

FILING DATE: 02-JUN-1995

CLASSIFICATION: 800

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/951,715

FILING DATE: 25-SEP-1992

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/772,027

FILING DATE: 04-OCT-1991

ATTORNEY/AGENT INFORMATION:

NAME: Pace, Gary M.

REGISTRATION NUMBER: 40403

REFERENCE/DOCKET NUMBER: CGC 1577/CIP/DIV4

TELECOMMUNICATION INFORMATION:

TELEPHONE: (919)541-8582

TELEFAX: (919)541-8689

## INFORMATION FOR SEQ ID NO: 26:

SEQUENCE CHARACTERISTICS:

LENGTH: 4162 base pairs

TYPE: nucleic acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: DNA (genomic)

HYPOTHETICAL: NO

FEATURE:

NAME/KEY: misc-feature

LOCATION: 1418..1427

OTHER INFORMATION: /note="start of mRNA"

FEATURE:

NAME/KEY: exon

LOCATION: 1481..2366

FEATURE:

NAME/KEY: intron

LOCATION: 2367..2451

FEATURE:

NAME/KEY: exon

LOCATION: 2452..2602

FEATURE:

NAME/KEY: intron

LOCATION: 2603..2690

FEATURE:

NAME/KEY: exon

LOCATION: 2691..2804

FEATURE:

NAME/KEY: intron

LOCATION: 2805..2906

FEATURE:

NAME/KEY: exon

LOCATION: 2907..3075

FEATURE:

NAME/KEY: intron

LOCATION: 3076..3177

FEATURE:

NAME/KEY: exon

LOCATION: 3178..3304

FEATURE:

NAME/KEY: intron

LOCATION: 3305..3398

FEATURE:

NAME/KEY: exon

LOCATION: 3399..3498

FEATURE:

NAME/KEY: intron

LOCATION: 3499..3713

FEATURE:

NAME/KEY: exon

LOCATION: 3714..3811

FEATURE:

NAME/KEY: promoter

LOCATION: 1..1477

IDENTIFICATION METHOD: experimental

OTHER INFORMATION: /partial

OTHER INFORMATION: /function="pollen-specific promoter region"

OTHER INFORMATION: /evidence="EXPERIMENTAL"

US-08-459-448A-26

Query Match

Best Local Similarity 53.6%; Score 143; DB 2; Length 4162;

Matches 349; Conservative 0; Mismatches 290; Indels 12; Gaps 2;

QY 680 CGGGTTCTGAGAACTTGGCGCGAAGTACGAGCTCGGAAGAGAGTGGAGGCGCA 739

DB 1729 CCGGCCCATGAGAGAGAGCTGGCGCGAGCTGATGAGGGAAGAGACTCGGGCGGCA 1788

QY 740 CTTCGACACACTTCTCCGCCCTGCTCAAGAAGGCGAGTACAGGACAGACCTCCG 799

DB 1789 GTTCGGCGTGCACACTTGTGACGCGCAGCGAGAGC-----GGCGAGAGCTGCG 1839

QY 800 CGTCAAGATCATGCGCAAGCTAAGATGACAAAGCAATATCATTCATGAGATGTTCTAG 859

Db 1840 GTGCAGACGATCGCGAAGCGAGCTGCGCGCCAGGAGAGACTGGACAGCTGCGCGC 1899  
QY 860 AGAGTAAATTTTGGAGAGCGTTATACAGGACAAATATCTGTCATATATGATGC 919  
Db 1900 GGAGGTGAGATGATGACACACCTCTCCGGCCACCCACAGTGTGGGCTCCCGCGCG 1959  
QY 920 ATGTAGAGATGAGCTCTCATATGTCATGTAATGTAAGGAGAGATGCT 979  
Db 1960 GTAGAGAGACAGACAGAGCGTGACCTGTCATATGAGACTGTCCGGCGGAGCTCTT 2019  
QY 980 AGACAGATATTTAGCCAGAGCGGGAGATACACAGAGAGATGCCAAGCGATTGTTGT 1039  
Db 2020 CGACCGCATATCGCGCGGGCGCAG--TACACGAGCGCGCGCGCGCGGAGCTGCGCG 2076  
QY 1440 ACAGATTTAGCGTATAGCTTCTGTCTGTCTGTCTGTCTGTCTGTCTGTCTGTCTGT 1099  
Db 2077 CGCCATGTCAGATCTGTGACACACTGCTCCATGCGGATGATGACCGGACATCAA 2136  
QY 1100 GCCAGAGATTTCTTTTACACACAGAGATGAAATGTCCTCCATGAATGATGATTT 1159  
Db 2137 GCCGAGAACTTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2196  
QY 1160 TCGTCTCTGATTTTATATGACAGATGAAAGCTTAATGATATTTGTTGAATGCTATA 1219  
Db 2197 CGGCTCTCTGCTCTTCAAGAGAGGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2256  
QY 1220 TTATGTTGCCCCAGAGGTTTACACAGATCATATATGATGAGAGACATTTGGAGTAT 1279  
Db 2257 CTACATCGCCCCAGAGTGTCTCAAGAGAGATGAGCGCCGAGGCGCCACATCTGCT 2316  
QY 1280 AGGTGTCATACGATCATCTGCTGTGTGAGCTGCGCCATCTGCGGACG 1330  
Db 2317 CGGCGTCATGCTCTACATCTTCTCCGCGCGGCGGCTCTGCTGCGGACG 2367

## RESULT 14

US-08-459-595A-26

Sequence 26, Application US/08459595A

Patent No. 6018104

GENERAL INFORMATION:

APPLICANT: Kozziel, Michael G.  
APPLICANT: Desai, Nalin M.  
APPLICANT: Lewis, Kelly S.  
APPLICANT: Kramer, Vance C.  
APPLICANT: Warren, Gregory W.  
APPLICANT: Evola, Stephen V.  
APPLICANT: Crossland, Lyle D.  
APPLICANT: Wright, Martha S.  
APPLICANT: Launis, Karen L.  
APPLICANT: Rothslein, Steven J.  
APPLICANT: Bowman, Cindy G.  
APPLICANT: Dawson, John L.  
APPLICANT: Dunder, Erik M.  
APPLICANT: Pace, Gary M.  
APPLICANT: Suttle, Janet L.  
TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED  
NUMBER OF SEQUENCES: 94  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: No. 6018104artis Corporation  
STREET: Patent & Trademark Dept., 520 White Plains  
CITY: Tarrytown  
STATE: New York  
COUNTRY: USA  
ZIP: 10591-9005

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/459,595A  
FILING DATE: 02-JUN-1995  
CLASSIFICATION: 800  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/951,715  
FILING DATE: 25-SEP-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/772,027  
FILING DATE: 04-OCT-1991  
ATTORNEY/AGENT INFORMATION:  
NAME: Pace, Gary M.  
REGISTRATION NUMBER: 40403  
REFERENCE/DOCKET NUMBER: CGC 1577/CIP/DIV3  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (919)541-8582  
TELEFAX: (919)541-8689  
INFORMATION FOR SEQ. ID NO: 26:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4162 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: DNA (genomic)  
HYPOTHETICAL: NO  
FEATURE:  
NAME/KEY: misc-feature  
LOCATION: 1418..1427  
OTHER INFORMATION: /note="start of mRNA"  
FEATURE:  
NAME/KEY: exon  
LOCATION: 1481..2366  
FEATURE:  
NAME/KEY: intron  
LOCATION: 2367..2451  
FEATURE:  
NAME/KEY: exon  
LOCATION: 2452..2602  
FEATURE:  
NAME/KEY: intron  
LOCATION: 2603..2690  
FEATURE:  
NAME/KEY: exon  
LOCATION: 2691..2804  
FEATURE:  
NAME/KEY: intron  
LOCATION: 2805..2906  
FEATURE:  
NAME/KEY: exon  
LOCATION: 2907..3075  
FEATURE:  
NAME/KEY: intron  
LOCATION: 3076..3177  
FEATURE:  
NAME/KEY: exon  
LOCATION: 3178..3304  
FEATURE:  
NAME/KEY: intron  
LOCATION: 3305..3398  
FEATURE:  
NAME/KEY: exon  
LOCATION: 3399..3498  
FEATURE:  
NAME/KEY: intron  
LOCATION: 3499..3713  
FEATURE:  
NAME/KEY: exon  
LOCATION: 3714..3811  
FEATURE:  
NAME/KEY: promoter  
LOCATION: 1..1477  
IDENTIFICATION METHOD: experimental  
OTHER INFORMATION: /partial

OTHER INFORMATION: /function= "pollen-specific promoter region"  
 OTHER INFORMATION: /evidence= EXPERIMENTAL  
 US-08-459-504B-26

Query Match 6.0%; Score 143; DB 3; Length 4162;  
 Best Local Similarity 53.6%; Pred. No. 9.2e-23;  
 Matches 349; Conservative 0; Mismatches 290; Indels 12; Gaps 2;

QY 680 CGGGTCTCGAAGAACTTCGGGGCGGAGTACGAGCTCGGGGAAGGAGTGGGGAGGCCA 739  
 DB 1729 CGGGCCCATGAGAGAGCTCGGGCGGAGCTCTCTGATGAGGAGAGAGTGGGGCGGCA 1788  
 QY 740 CTTCGACACACTTGTCTCCCGCTCTCAAGAGGCGGAGTACAGAGGAGACCGCTGC 799  
 DB 1789 GTTCGGCGTACGACCTGTGACGACCGAGACGAC-----GGCGAGAACTGGC 1839  
 QY 800 CGTCAAGATCATCGCCAAAGCTAAGTACACAGGCAATATCATTTGAGATTTCTGTA 859  
 DB 1840 GTGCAAGAGATCGGCAACGCGAAGCTGGCGGAGAGAGAGTGGAGACGTGGCGG 1899  
 QY 860 AGAAGTAAATTTTGAAGCGTTATCAGGGCAGCAATTAATCTGCAAAATTTATGATGC 919  
 DB 1900 GAGAGTGCAGATCATGACACCTCTCGGGCGAGCCCAACGTGTGGCTCGCGGCGC 1959  
 QY 920 ATGTGAGATGCGCTCAATGTCTACATTTGATGAATTAATGAGGAGAGAAATTTGCT 979  
 DB 1960 GTACGAGAGCAACAGAGCGGTGACCTGTCATGAGAGCTGTGCGGGCGGAGCTCT 2019  
 QY 980 AGCACAATTTAGCCAGAGGCGGAGATACACAGAGAAAGATGCCAAGCGATTGTGT 1039  
 DB 2020 CGACCCATCATCGCCGGGGCCAG--TACAGGAGCGGGCGGCGGAGCTGTGGC 2076  
 QY 1040 ACAGATTTTGAAGCGTGTAGCTTGTCTGTCTTCAAGGGGAGTGTGATGATTTGA 1099  
 DB 2077 CGCATTCGTACATGCTGACACCTGCCCTCATGAGGGGTATGACCGGAGCATCAA 2136  
 QY 1100 GCCAGAGATTTCTTTTCAACAGAGGAGTAAATGCTCCATGAATTTGATTTT 1159  
 DB 2137 GCCGAGAACTTCTCTGCTGTGACAAAGAGAGAGCGCCGCTCAAGGCCACCGACT 2196  
 QY 1160 TGTCTCTCTGATTTTATGACAGATGAAGGCTTAATGATATTTTGGAGTGTATA 1219  
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 QY 1280 AGGTGTCATACGTACATTTCTGTGTGGCAAGTGGCGCATCTTGCGGACG 1330  
 DB 2317 CGGCGTCTCTCTACATTTCTCTCGCGGCGGCTCTCTCTGCGGACG 2367

RESULT 15  
 US-08-459-504B-26  
 Sequence 26, Application US/08459504B  
 Patent No. 6075185

GENERAL INFORMATION:

APPLICANT: kozziel, Michael G.  
 APPLICANT: Desai, Nalin M.  
 APPLICANT: Lewis, Kelly S.  
 APPLICANT: Kramer, Vance C.  
 APPLICANT: Warren, Gregory W.  
 APPLICANT: Evola, Stephen V.  
 APPLICANT: Crossland, Lyle D.  
 APPLICANT: Wright, Martha S.  
 APPLICANT: Merlin, Ellis J.  
 APPLICANT: Launis, Karen L.  
 APPLICANT: Rothstein, Steven J.  
 APPLICANT: Bowman, Cindy G.  
 APPLICANT: Dawson, John L.  
 APPLICANT: Dunder, Erik M.  
 APPLICANT: Pace, Gary M.

APPLICANT: Suttie, Janet L.  
 TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED  
 TITLE OF INVENTION: INSECTICIDAL ACTIVITY IN MAIZE  
 NUMBER OF SEQUENCES: 94  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: No. 6075185artis Corporation  
 STREET: 3054 Cornwallis Road  
 CITY: Research Triangle Park  
 STATE: NC  
 COUNTRY: USA  
 ZIP: 27709  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: Patent Release #1.0, Version #1.30  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/459,504B  
 FILING DATE:  
 CLASSIFICATION:  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 08/459,595  
 FILING DATE: 02-JUN-1995  
 APPLICATION NUMBER: US 07/951,715  
 FILING DATE: 25-SEP-1992  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 07/772,027  
 FILING DATE: 04-OCT-1991  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Weigs, J. Timothy  
 REGISTRATION NUMBER: 38,241  
 REFERENCE/DOCKET NUMBER: CGC1577/CIP/DIV  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (919)541-8587  
 TELEFAX: (919)541-8689  
 INFORMATION FOR SEQ ID NO: 26:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 4162 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: single  
 TOPOLOGY: linear  
 MOLECULE TYPE: DNA (genomic)  
 HYPOTHETICAL: NO  
 FEATURE:  
 NAME/KEY: misc-feature  
 LOCATION: 1418..1427  
 OTHER INFORMATION: /note= "start of mRNA"  
 FEATURE:  
 NAME/KEY: exon  
 LOCATION: 1481..2366  
 FEATURE:  
 NAME/KEY: Intron  
 LOCATION: 2367..2451  
 FEATURE:  
 NAME/KEY: exon  
 LOCATION: 2452..2602  
 FEATURE:  
 NAME/KEY: Intron  
 LOCATION: 2603..2690  
 FEATURE:  
 NAME/KEY: exon  
 LOCATION: 2691..2804  
 FEATURE:  
 NAME/KEY: Intron  
 LOCATION: 2805..2906  
 FEATURE:  
 NAME/KEY: exon  
 LOCATION: 2907..3075  
 FEATURE:  
 NAME/KEY: Intron  
 LOCATION: 3076..3177  
 FEATURE:  
 NAME/KEY: exon

LOCATION: 3178..3304  
FEATURE:  
NAME/KEY: Intron  
LOCATION: 3305..3398  
FEATURE:  
NAME/KEY: exon  
LOCATION: 3399..3498  
FEATURE:  
NAME/KEY: Intron  
LOCATION: 3499..3713  
FEATURE:  
NAME/KEY: exon  
LOCATION: 3714..3811  
US-08-459-504B-26

Query Match 6.0%; Score 143; DB 3; Length 4162;  
Best Local Similarity 53.6%; Pred. No. 9.2e-23;  
Matches 349; Conservative 0; Mismatches 290; Indels 12; Gaps 2;

QY 680 CGGGTTCTCGAAGAACTTCGGCGGAGTACGAGCTCGGAGAGAGTGAGGAGGAGGCA 739  
DB 1729 CCGGCCCATGAGAGACGTCGGCGGCACTACTCGATGGCAAGAGCTCGGGCGGGCA 1788  
QY 740 CTTGGAGACACTTGTCTCCGCGTCTCAGAGGGCGAGTACAGGGACAGCCGTGCG 799  
DB 1789 GTTCGGCGTGAACCTGTGTGACGACACCGGAGAGC-----GCCGAGAAAGCTGGC 1839  
QY 800 CGTCAAGATCATCGCAAGCTAAGATGACAAAGCAATATCATTTGAGATGTTCTAG 859  
DB 1840 GTGCAAGACGATCGCGAAGCGGAAGCTGGCGGCAAGGAGAGCTGAGACGTGCGGG 1899  
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DB 1960 GTACGAGACAGACAGACGCTGACCTGCTGATGAGCTGTGCGGGCGGGAGCTCTT 2019  
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DB 2020 CGACCGCATCATCGCCGGGCGCAG--TACAGGAGCGGGCGCGGAGCTGCTGCG 2076  
QY 1040 ACAGATTTGAGCGTAGTACCTTTCTGCAATCTTCAGGGGCTAGTGCATCGTATTGAA 1099  
DB 2077 CGCCATGCTGACAGATCGTGCACTGCACTGCTCATGCGGTGATGCACCGGACATCAA 2136  
QY 1100 GCCAGAGAAATTCCTTTTCAACACAGAGATGAAATGCTCCCATGAGTGTGATTGATT 1159  
DB 2137 GCCGAGAACTTCTGCTGCTGCTCAGCAAGAGCGAGACGCGCGCTCAAGGCCACGACTT 2196  
QY 1160 TGGTCTCTGATTTGATTTAGACACATGAAAGCTTAATGATATTGTTGAAGTCATA 1219  
DB 2197 CGGCTCTTCGTTCTTCAAGGAGGCGAGCTCAGGACATCGTCGGCAGCGCTTA 2256  
QY 1220 TTATGTTGCCCCAGAGGTTTTACACAGATCATATAGTATGSAAGACATTTGAGAT 1279  
DB 2257 CTACATCGGCGCCGAGAGTCTCTCAAGAGAAAGTACGCGCCGAGCGCATCTGAGCGT 2316  
QY 1280 AGGTGATATAGCATATCTGCTGTGCGAGTCGCCCATTTGGGCAAG 1330  
DB 2317 CGGCGTATGCTCTCATCTCTCGCGCGGCTGCTCCTCTTGGGCAAG 2367

Search completed: January 26, 2003, 10:46:59  
Job time : 97 secs

GenCore version 5.1.3  
Copyright (c) 1993 - 2003 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: January 26, 2003, 10:47:19 : Search time 24 Seconds

(without alignments)  
763.770 Million cell updates/sec

Title: US-09-854-731A-4

Perfect score: 3260  
Sequence: 1 MGCCYKGASGRTADDEGV.....LGFTKFLHGVTIRGSNTRRH 623

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

Total number of hits satisfying chosen parameters: 262574

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

Database :

Issued\_Patents\_AA:\*  
1: /cgn2\_6/prodata/1/1aa/5A.COMB.pep:\*  
2: /cgn2\_6/prodata/1/1aa/5B.COMB.pep:\*  
3: /cgn2\_6/prodata/1/1aa/6A.COMB.pep:\*  
4: /cgn2\_6/prodata/1/1aa/6B.COMB.pep:\*  
5: /cgn2\_6/prodata/1/1aa/PCUTS.COMB.pep:\*  
6: /cgn2\_6/prodata/1/1aa/backfile1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	3260	100.0	623	4	US-09-347-801-4
2	2862	87.8	625	4	US-09-347-801-18
3	1816.5	55.7	576	4	US-09-347-801-19
4	883.5	27.1	639	4	US-09-347-801-17
5	854	26.2	464	1	US-07-951-715A-22
6	854	26.2	464	2	US-08-459-448A-22
7	854	26.2	464	3	US-08-459-504B-22
8	854	26.2	464	3	US-08-459-504B-22
9	854	26.2	464	3	US-08-459-444-22
10	854	26.2	464	4	US-09-547-422-22
11	817	25.1	463	1	US-07-951-715A-25
12	817	25.1	463	1	US-08-459-448A-25
13	817	25.1	463	3	US-08-459-504B-25
14	817	25.1	463	3	US-08-459-504B-25
15	817	25.1	463	3	US-08-459-444-25
16	817	25.1	463	4	US-09-547-422-25
17	742	22.8	408	1	US-07-951-715A-21
18	742	22.8	408	2	US-08-459-448A-21
19	742	22.8	408	3	US-08-459-504B-21
20	742	22.8	408	3	US-08-459-504B-21
21	742	22.8	408	3	US-08-459-444-21
22	742	22.8	408	4	US-09-547-422-21
23	548	16.8	456	1	US-08-464-164-2
24	548	16.8	456	1	US-08-338-057-2
25	548	16.8	456	2	US-08-338-057-2
26	510	15.6	517	4	US-08-668-416-2
27	505.5	15.5	370	2	US-08-878-989-19

28	505.5	15.5	370	4	US-09-272-796-19	Sequence 19, Appl
29	505.5	15.5	370	4	US-09-457-040B-31	Sequence 31, Appl
30	497	15.2	448	2	US-09-159-385-2	Sequence 2, Appl
31	497	15.2	448	4	US-09-186-277-2	Sequence 2, Appl
32	496.5	15.2	454	2	US-09-159-385-1	Sequence 1, Appl
33	496.5	15.2	454	4	US-09-186-277-1	Sequence 1, Appl
34	495	14.9	424	2	US-09-257-825B-20	Sequence 20, Appl
35	486.5	14.9	424	2	US-08-715-568A-1	Sequence 1, Appl
36	482.5	14.8	343	2	US-08-878-989-5	Sequence 5, Appl
37	482.5	14.8	343	4	US-09-272-796-5	Sequence 5, Appl
38	472	14.5	111	4	US-09-347-801-8	Sequence 8, Appl
39	465	14.3	264	2	US-07-857-224B-24	Sequence 24, Appl
40	457	14.0	157	4	US-09-347-801-6	Sequence 6, Appl
41	453	13.9	1423	4	US-08-810-712-10	Sequence 10, Appl
42	450	13.8	264	2	US-07-857-224B-18	Sequence 18, Appl
43	449	13.8	331	4	US-08-810-712-24	Sequence 24, Appl
44	444.5	13.6	387	1	US-08-713-828-3	Sequence 3, Appl
45	444.5	13.6	387	2	US-08-919-627-3	Sequence 3, Appl

## ALIGNMENTS

RESULT 1									
US-09-347-801-4									
; Sequence 4, Application US/09347801									
; Patent No. 6262345									
; GENERAL INFORMATION:									
; APPLICANT: Allen, Steve									
; APPLICANT: Lee, Jian Ming									
; TITLE OF INVENTION: Plant Protein Kinases									
; FILE REFERENCE: BB-1171									
; CURRENT APPLICATION NUMBER: US/09/347, 801									
; CURRENT FILING DATE: 1999-07-02									
; EARLIER APPLICATION NUMBER: 60/092, 438									
; EARLIER FILING DATE: July 10, 1998									
; NUMBER OF SEQ ID NOS: 23									
; SOFTWARE: Microsoft Office 97									
; SEQ ID NO: 4									
; LENGTH: 623									
; TYPE: PRT									
; ORGANISM: Oryza sativa									
US-09-347-801-4									
Query Match									
Best Local Similarity 100.0%; Pred. No. 5.2e-254;									
Matches 623; Conservative 0; Mismatches 0; Indels 0; Gaps 0;									
QY	1	MGCCYKGASGRTADDEGVTEHOSPPRANGLPSPRRQAOAOAOVGTPRRRSGSG	60						
DB	1	MGCCYKGASGRTADDEGVTEHOSPPRANGLPSPRRQAOAOAOVGTPRRRSGSG	60						
QY	61	STTPGHOTPCVAMPSPYPSGASPLPAGVSPSPARSTRPFRFPFRPPSPAHIRATLA	120						
DB	61	STTPGHOTPCVAMPSPYPSGASPLPAGVSPSPARSTRPFRFPFRPPSPAHIRATLA	120						
QY	121	KRLGGCKPKKCGTTPBECGVAGAGGGGADGAETERPDKTFGSPKNGAKYELGKVGVR	180						
DB	61	STTPGHOTPCVAMPSPYPSGASPLPAGVSPSPARSTRPFRFPFRPPSPAHIRATLA	120						
QY	121	KRLGGCKPKKCGTTPBECGVAGAGGGGADGAETERPDKTFGSPKNGAKYELGKVGVR	180						
DB	121	KRLGGCKPKKCGTTPBECGVAGAGGGGADGAETERPDKTFGSPKNGAKYELGKVGVR	180						
QY	181	GHRGHTCSAVVKKGGKGVAVAKITAKAKMTAISTEDVRRVKILRALSGNNLVKFY	240						
DB	181	GHRGHTCSAVVKKGGKGVAVAKITAKAKMTAISTEDVRRVKILRALSGNNLVKFY	240						
QY	241	DACEDGLNVTYVVELCEGSELDRILARGRYTEEDAKIAIVOILSVAFCHLQGVVHRD	300						
DB	241	DACEDGLNVTYVVELCEGSELDRILARGRYTEEDAKIAIVOILSVAFCHLQGVVHRD	300						
QY	301	LKRENFLETTTRDENAPKLLIDFGLSDFIRPDERLNDIVGSATYVAPVYLRHSMEADIW	360						
DB	301	LKRENFLETTTRDENAPKLLIDFGLSDFIRPDERLNDIVGSATYVAPVYLRHSMEADIW	360						
QY	361	SIGVITVILLGSRPFPARTESGIFRSVLADPNFDSPPPTYSAEKKDPVKRFLKKDYR	420						

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Db 361 STGIVITILLCSRPWARTESGIFRSVLRADPNFDDSPWPTVSAKPFVRLNKDVR 420
Qy 421 KRRTAVQALTHPWLDEQROIPLDILIFRLIKOYLRAFLKRLAKLSKALREDELLYL 480
Db 421 KRRTAVQALTHPWLDEQROIPLDILIFRLIKOYLRAFLKRLAKLSKALREDELLYL 480
Qy 481 KIQFKLEPRDGVSLDNFRALTRLTLDAMKESRLEFLHLEPLAARMDFEERCAAA 540
Db 481 KIQFKLEPRDGVSLDNFRALTRLTLDAMKESRLEFLHLEPLAARMDFEERCAAA 540
Qy 541 ISPYOLEALERMEIAGTAFQOFEQEGNRSVISEELAOELNLAPTYHSIVQDMIRKSDK 600
Db 541 ISPYOLEALERMEIAGTAFQOFEQEGNRSVISEELAOELNLAPTYHSIVQDMIRKSDK 600
Qy 601 LNFGLGFTKFLHGVTTIRGNTRRH 623
Db 601 LNFGLGFTKFLHGVTTIRGNTRRH 623
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RESULT 2
US-09-347-801-18
; Sequence 18, Application US/09347801
; Patent No. 6262345
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Lee, Jian Ming
; TITLE OF INVENTION: Plant Protein Kinases
; FILE REFERENCE: BB-1171
; CURRENT APPLICATION NUMBER: US/09/347,801
; EARLIER FILING DATE: 1999-07-02
; EARLIER APPLICATION NUMBER: 60/092,438
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: Microsoft Office 97
; LENGTH: 625
; TYPE: PRT
; ORGANISM: Zea mays
US-09-347-801-18
```

```
Query Match 87.8%; Score 2862; DB 4; Length 625;
Best Local Similarity 87.7%; Pred. No. 5.3e-222;
Matches 561; Conservative 16; Mismatches 31; Indels 32; Gaps 7;

Qy 1 MGCCYCK--GASGRT---ADDEGGVTEHOSPPRANGLPSTPRROQAQAQOQVGTPRRR 55
Db 1 MGCCYCKARAGASRRADHDADPSGAGSVAPSPPLPANGAPLP-----ATPRRH 47
Qy 56 GSKSGSTTGGHO---TPG-VAMPSPYPSGASPLPAGVSPSPARSPRRFRKPPPPS 110
Db 48 --KSGSTTPVHHQAATPPCAAMPSPYPAGASPLPAGVSPSPARSTPRFRFRPPPPS 105
Qy 111 PAKHAKTAKRLGSGKPKEGTIPBEGGVAGAGGGG-----GAADGAETTERPLDKTGG 163
Db 106 PAKHAKTAKRLGSGKPKEGTIPBEGGVAGAGAGAGAGAAVGAADSAEADRPDKTGG 165
Qy 164 FSKNFAKTELKGVGRGHGHTCSAVVKKGEYKGTVAVKITAKAKMTTAISIEVRRR 223
Db 166 FAKNFAKDYDLKGVGRGHGHTCSAVVKKGEHKGHTVAVKITAKAKMTTAISIEVRRR 225
Qy 224 VKLRLASGNNLVKFFYDACEEDGLNVIYVWELCEGELLDRILARGRYTEEPAKAIYVO 283
Db 226 VKLRLASGNNLVKFFYDACEEDGLNVIYVWELCEGELLDRILARGRYTEEPAKAIYVO 285
Qy 284 ILSVAFCHLQGVVHBDLRFENLFTTRDENAPMKLIDFGLSDFIRPDERLNDIVGSAYY 343
Db 286 ILSVAFCHLQGVVHBDLRFENLFTTRDENAPMKLIDFGLSDFIRPDERLNDIVGSAYY 345
Qy 344 VAEVUHRSTSMADTWSIGVITYILLCSRPWARTESGIFRSVLRADPNFDDSPWPTV 403
Db 346 VAEVUHRSTSMADTWSIGVITYILLCSRPWARTESGIFRSVLRADPNFDDSPWPTV 405
```

```
Qy 404 SAEAKDFVRFLNKDVRKMYTAVQALTHPWLDEQROIPLDILIFRLIKOYLRAFLKRL 463
Db 406 SAEAKDFVRFLNKDVRKMYTAVQALTHPWLDEQROIPLDILIFRLIKOYLRAFLKRL 465
Qy 464 ALKALSALREDELLYLKIQFKLEPRDGVSLDNFRALTRLTLDAMKESRLEFLHAL 523
Db 466 ALKALSALREDELLYLKIQFKLEPRDGVSLDNFRALTRLTLDAMKESRLEFLHAL 525
Qy 524 EPLAARMDFEERCAAAISPYOLEALERMEIAGTAFQOFEQEGNRSVISEELAOELNLA 583
Db 526 EPLAARMDFEERCAAAISPYOLEALERMEIAGTAFQOFEQEGNRSVISEELAOELNLA 585
Qy 584 PTHSIVQDMIRKSDGLNFGFTKFLHGVTTIRGNTRRH 623
Db 586 PTHSIVQDMIRKSDGLNFGFTKFLHGVTTIRGNTRRH 625
```

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RESULT 3
US-09-347-801-19
; Sequence 19, Application US/09347801
; Patent No. 6262345
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Lee, Jian Ming
; TITLE OF INVENTION: Plant Protein Kinases
; FILE REFERENCE: BB-1171
; CURRENT APPLICATION NUMBER: US/09/347,801
; EARLIER FILING DATE: 1999-07-02
; EARLIER APPLICATION NUMBER: 60/092,438
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 19
; LENGTH: 576
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-09-347-801-19
```

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Query Match 55.7%; Score 1816.5; DB 4; Length 576;
Best Local Similarity 57.3%; Pred. No. 5.6e-138;
Matches 358; Conservative 95; Mismatches 109; Indels 63; Gaps 9;

Qy 1 MGCCYCKGASGRTADDEGGVTEHOSPPRANGLPSTPRROQAQAQOQVGTPRRRGSKSG 60
Db 1 MGCHCK-----PVHQQS-----KSLPVSGEINAEPTNSQ----- 30
Qy 61 STTPGHQTPGVAMPSPYPSGASPLPAGVSPSPA-----RSTPRRRFKRPPPPSPAKHI 115
Db 31 ---PPAKSSGFPPYSP-----SPVSLPKSSPSVSSVSTPLRATFKRPPPPSPAKHI 81
Qy 116 KATLARILGSGKPKEGTIPBEGGVAGAGGGGGAADGAETTERPLDKTFFGSKNGAKYEIG 175
Db 82 RAFLARRYGSKPNEVSIPE-----CKEETIGLDKSFGSKOPASHYEID 126
Qy 176 KEYGRGHFGHTCSAVVKKGEYKGTVAVKITAKAKMTTAISIEDVREVKILRLSGHNN 235
Db 127 GEYGRGHFGHTCSAVVKKGEYKGTVAVKITAKAKMTTAISIEDVREVKILRLSGHNN 186
Qy 236 LVKFYDACEEDGLNVIYVWELCEGELLDRILARGRYTEEDAKAIYVOILSVAFCHLOG 295
Db 187 LVQFYDACEEDGLNVIYVWELCEGELLDRILARGRYTEEDAKAIYVOILSVAFCHLOG 246
Qy 296 VVHRDLKPFENLFTTRDENAPMKLIDFGLSDFIRPDERLNDIVGSAYYVAEVLHRSYSM 355
Db 247 VVHRDLKPFENLFTTRDENAPMKLIDFGLSDFIRPDERLNDIVGSAYYVAEVLHRSYSM 306
Qy 356 EADIWSIGVITYILLCSRPWARTESGIFRSVLRADPNFDDSPWPTVSAEAKDFVRL 415
Db 307 EADIWSIGVITYILLCSRPWARTESGIFRSVLRADPNFDDSPWPTVSAEAKDFVRL 366
Qy 416 NKDYRRKMYTAVQALTHPWL-RDEQROIPLDILIFRLIKOYLRAFLKRLAKLSKALRE 474
Db 367 NKDYRRKMYTAVQALTHPWL-RDEQROIPLDILIFRLIKOYLRAFLKRLAKLSKALRE 426
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[illegible]

```

RESULT 4
US-09-347-801-17
: Sequence 17, Application US/09347801
: Patent No. 6262345
: GENERAL INFORMATION:
: APPLICANT: Allen, Steve
: APPLICANT: Lee, Jian Ming
: TITLE OF INVENTION: Plant Protein Kinases
: FILE REFERENCE: BB-1171
: CURRENT APPLICATION NUMBER: US/09/347,801A
: CURRENT FILING DATE: 1999-07-02
: EARLIER APPLICATION NUMBER: 60/092,438
: EARLIER FILING DATE: July 10, 1998
: NUMBER OF SEQ ID NOS: 23
: SOFTWARE: Microsoft Office 97
: SEQ ID NO 17
: LENGTH: 639
: TYPE: prt
: ORGANISM: Zea mays
: US-09-347-801-17

```

Query Match	27.1%	Score 883.5;	DB 4,	Length 639;
Best Local Similarity	35.4%;	Pred. No. 6.9e-63;		
Matches 219;	Conservative 102;	Mismatches 234;	Indels 63;	Gaps 17

Qy	25	QSPRANLPTPRQOAOAOOVGTRRRRSGSGSTTGNOHPTGVAMSPSPYSGASP	84
Db	25	КТРОЕДАЛР-----АААНОРGGAGGSGSALРKРАSDVНННАVOS-----ЕАР	69
Qy	85	LРAGVSPRANSTRPREFKRPРPPSPAKNIT-ATЛАKRLGG-----KPECTIPEEG	137
Db	70	EPVKIAAHSPAPAVRSEAPEPKVIAASHSEPRAPMAKPGGAANASPSPPRPPOVK	129
Qy	138	GVGAGGGGGGAADAEFRPJDITKFFGSKNNGAXEYELKEVGRCHG--HTCSAVVAKGE	135
Db	130	RVSASGILLGSVLRKTE-----NIKDUYSIGRRJGQGOQFATJHLC--VERA-17/4	113
Qy	196	YKQTVAVAKITAKAKMTAISIEDVREVKILRALSGHNNMLYKPYDACEGLNVIYIMEL	255
Db	175	-TGKRLACKSLKKRKLGSDDDEVREIOQMHNHLACHPSVVGIRGAYEDAVANHLVIMEL	233
Qy	256	CEGGEILDRILARGRTYEEDAKAINVOILISVAFCHJGCVNHRDLKPEMFLETTREDENA	315
Db	234	CGGGELFEPRIYR-CHYETERRKAALARIYGVAVECASHMGMHKDLKPEMFLFADHSEEA	292
Qy	316	PMKILDELSPITPDELINIVSAYVVAPEVLRHSTYSMADLWSJGVITYILLGSSRP	375
Db	293	ALKTIDELSLFFERPGOJFTDVVQSPYVAEYVLRKRGAPADWASGVITYILLGSPR	352
Qy	376	FMARTESIFRFSVLRADPNFEDSPYVSAEAKDFVRFLNKIDYKRMPTAVQALTHGWL	435
Db	353	FMAENEGSITFEFVHLGRIDFESSEWPSISDQAKOYVRMLYRDQRKTLTHAEVLRHNV-	411
Qy	436	DEOROI-----PLDILIFRLIKOYLRAPPLKRLALAKALSALREDELLYLKQFLKE	488
Db	412	-----OVGVADRPDLSAVLSRMKQFSAMNKLKCMALRIEANLSEDEIGLRFEMKIID	467
Qy	489	-PROSFVSLDMFRRLATLYLLTDAAKESVVEFLHIALERPLAYRMDDEEFCAAALSPQOLE	547

Db 468 ADNSGQIFFEELKAGLEVCAN--LOESEIYALMOAAVDNNGTFIDGCEFAATL---HLN 533

Oy 548 ALERMEETAGTAAFOFOEGGRNVTSBEL--AOELMLAPTHV-SIVODAIRKSDGLNF 6033

Dd 524 KVER-EDHLFAAFYFPKDGSGYITABELQVACEEFPGLGVLEDLIGFVDQDNDGRIDY 582

Oy 604 LGFTKFLHGVTIRGSNTR 621

Dd 583 NEFVAAAMQKPTVGSGRRR 600

RESULT 5  
 US-07-951-715A-22  
 : Sequence 22, Application US/07951715A  
 : Patent No. 5625136  
 :  
 : GENERAL INFORMATION:  
 : APPLICANT: Koziel, Michael G.  
 : APPLICANT: Desai, Nalini M.  
 : APPLICANT: Lewis, Kelly S.  
 : APPLICANT: Kramer, Vance C.  
 : APPLICANT: Warren, Gregory W.  
 : APPLICANT: Evola, Stephen V.  
 : APPLICANT: Crossland, Lyle D.  
 : APPLICANT: Wright, Martha S.  
 : APPLICANT: Merlin, Ellis J.  
 : APPLICANT: Launis, Karen L.  
 : APPLICANT: Rothstein, Steven J.  
 : APPLICANT: Bowman, Cindy G.  
 : APPLICANT: Dawson, John L.  
 : APPLICANT: Dunder, Erik M.  
 : APPLICANT: Pace, Gary M.  
 : APPLICANT: Suttle, Janet L.  
 : TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED  
 : INSECTICIDAL ACTIVITY IN MAIZE  
 : NUMBER OF SEQUENCES: 94  
 :  
 : CORRESPONDENCE ADDRESS:  
 : ADDRESSEE: CIBA-GEIGY Corporation  
 : STREET: 7 Skyline Drive  
 : CITY: Hawthorne  
 : STATE: New York  
 : COUNTRY: USA  
 : ZIP: 10532  
 :  
 : COMPUTER READABLE FORM:  
 : MEDIUM TYPE: Floppy disk  
 : COMPUTER: IBM PC compatible  
 : OPERATING SYSTEM: PC-DOS/MS-DOS  
 : SOFTWARE: Patentln Release #1.0, Version #1.30B  
 :  
 : CURRENT APPLICATION DATA:  
 : APPLICATION NUMBER: US/07/951,715A  
 : FILING DATE: 25-SEP-1992  
 : CLASSIFICATION: 800  
 :  
 : PRIOR APPLICATION DATA:  
 : APPLICATION NUMBER: US 07/772,027  
 : FILING DATE: 04-OCT-1991  
 : ATTORNEY/AGENT INFORMATION:  
 : NAME: Sprull, W. Murray  
 : REGISTRATION NUMBER: 32,943  
 : REFERENCE/DOCKET NUMBER: S-18805/A/CGC 1577/CIP  
 : TELECOMMUNICATION INFORMATION:  
 : TELEPHONE: (919)541-8615  
 : TELEFAX: (919)541-8689  
 : INFORMATION FOR SEO ID NO: 22:  
 : SEQUENCE CHARACTERISTICS:  
 : LENGTH: 464 amino acids  
 : TYPE: amino acid  
 : STRANDEDNESS: single  
 : TOPOLOGY: linear  
 : MOLECULE TYPE: protein  
 : HYPOTHETICAL: NO  
 : FEATURE:  
 : NAME/KEY: Protein  
 : LOCATION: 1..464  
 : OTHER INFORMATION: /note= "derived protein sequence of





PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/459,595  
FILING DATE: 02-JUN-1995  
APPLICATION NUMBER: US 07/951,715  
FILING DATE: 25-SEP-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/772,027  
FILING DATE: 04-OCT-1991  
ATTORNEY/AGENT INFORMATION:  
NAME: Meligs, J. Timothy  
REGISTRATION NUMBER: 38,241  
REFERENCE/DOCKET NUMBER: CGC1577/CIP/DIV  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (919)541-8587  
TELEFAX: (919)541-8689  
INFORMATION FOR SEQ ID NO: 22:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 464 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO  
FEATURE:  
NAME/KEY: Protein  
LOCATION: 1..464  
OTHER INFORMATION: /note- "derived protein sequence of  
OTHER INFORMATION: pollen specific CDPK as disclosed in Figure 34."  
US-08-459-504B-22

Query Match 26.2% Score 854; DB 3; Length 464;  
Best Local Similarity 40.0%; Pred. No. 1e-60;  
Matches 186; Conservative 88; Mismatches 163; Indels 28; Gaps 10;  
QY 156 RPLDKTFEGSKNGKAYELGKEVGRHFG--HTCSAVVKKGEYKQGTAVAKIIRAKKMTT 213  
DB 4 RPME-----DVRATYSKMGKELGRCQFGVTHLCT-----HRTSGEKLAKTIARKKLAA 51  
QY 214 AISEDVRRVKTLRALSGNNLVKRYDACEGLNYIWECEGELLDRILARCGRT 273  
DB 52 REDVDVRRVQIMHLSGQPNVGLRGAEEDQSVHLYMELCAGGELPDRIIAR-GQYT 110  
QY 274 EEDAKAIIVQILSVAFCHLOGVHNRDLKRNFLFTTRDENAPMKLIDGLSDFIRPDR 333  
DB 111 ERGAELRLAIQIVHTCSMGVMHRDIKRENELLSKDEDAPLKATDGLSVFFKEGEL 170  
QY 334 LNDIVSAYVVAPEVLRHRSYMEADTWSIGVTIYLCSGRRFWARTESGIFRSVRADP 393  
DB 171 LNDIVSAYVVAPEVLRHRSYMEADTWSIGVTIYLCSGRRFWARTESGIFRSVRADP 393  
QY 394 NFQDSMPRTVSAEAKDFVKRFLKDYRKMTAVQALTHPLRD--EQROIPDLILFRIL 451  
DB 231 DLSSEPMPTISPAKDLVKMKLINPKERLTAQVLNHPKEDGAPPTDPLNVVLDRI 290  
QY 452 KOYLRAATPLKRLALSKALREDELLYLQFLKE-PROGFSVLSNFTALTTRTALTD 510  
DB 291 KQRRANNOFKKALRTIAGLSEELTGKEMKNTDKDNGSGITIDELKHGLAKH-GPK 349  
QY 511 MKSRVLEFLHLEPLATYRRMDEFECAAIISYQLEALERMEWELGTAFOQFEQGNRY 570  
DB 350 LQSDSEKELMEADADANGCIDDEFVTATV--HNNKLDL-EEHLYTAFOYQEDKDNQSGY 405  
QY 571 ISVEEL-----AOELNAPTHYSIVODWIRKSDGKLNPLGFTKFL 610  
DB 406 ITKEELHALKEGGLYDADKIKDIIISDADSDNGRIDYSEETVAM 450

RESULT 9  
US-08-459-444-22  
Sequence 0, Application US/08459444  
Patent No. 6121014  
GENERAL INFORMATION:  
APPLICANT: Kozziel, Michael G.

Desai, Nalini M.  
Lewis, Kelly S.  
Kramer, Vance C.  
Warren, Gregory W.  
Evola, Stephen V.  
Crossland, Lyle D.  
Wright, Martha S.  
Merlin, Ellis J.  
Lauais, Karen L.  
TITLE OF INVENTION: METHOD FOR PRODUCING A PLANT-OPTIMIZED  
NUCLEIC ACID CODING SEQUENCE  
NUMBER OF SEQUENCES: 94  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: No. 6121014artis Agribusiness Biotechnology Research, Inc.  
STREET: 3054 Cornwallis Road  
CITY: Research Triangle Park  
STATE: NC  
COUNTRY: USA  
ZIP: 27709  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/459,444A  
FILING DATE: 02-Jun-1995  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/951,715  
FILING DATE: 25-SEP-1992  
APPLICATION NUMBER: US 07/772,027  
FILING DATE: 04-OCT-1991  
ATTORNEY/AGENT INFORMATION:  
NAME: Meligs, J. Timothy  
REGISTRATION NUMBER: 38,241  
REFERENCE/DOCKET NUMBER: S-18805/PI/CGC1577/CIP/DIV6  
TELEPHONE: (919)541-8689  
TELEFAX: (919)541-8587  
INFORMATION FOR SEQ ID NO: /note- "derived protein sequence of  
pollen specific CDPK as disclosed in Figure 34."  
SEQUENCE CHARACTERISTICS:  
LENGTH: 464 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO  
FEATURE:  
NAME/KEY: Protein  
LOCATION: 1..464  
OTHER INFORMATION: /note- "derived protein sequence of  
OTHER INFORMATION: pollen specific CDPK as disclosed in Figure 34."  
US-08-459-444-22

Query Match 26.2% Score 854; DB 3; Length 464;  
Best Local Similarity 40.0%; Pred. No. 1e-60;  
Matches 186; Conservative 88; Mismatches 163; Indels 28; Gaps 10;  
QY 156 RPLDKTFEGSKNGKAYELGKEVGRHFG--HTCSAVVKKGEYKQGTAVAKIIRAKKMTT 213  
DB 4 RPME-----DVRATYSKMGKELGRCQFGVTHLCT-----HRTSGEKLAKTIARKKLAA 51  
QY 214 AISEDVRRVKTLRALSGNNLVKRYDACEGLNYIWECEGELLDRILARCGRT 273  
DB 52 REDVDVRRVQIMHLSGQPNVGLRGAEEDQSVHLYMELCAGGELPDRIIAR-GQYT 110  
QY 274 EEDAKAIIVQILSVAFCHLOGVHNRDLKRNFLFTTRDENAPMKLIDGLSDFIRPDR 333  
DB 111 ERGAELRLAIQIVHTCSMGVMHRDIKRENELLSKDEDAPLKATDGLSVFFKEGEL 170  
QY 334 LNDIVSAYVVAPEVLRHRSYMEADTWSIGVTIYLCSGRRFWARTESGIFRSVRADP 393

Db 171 LRDIVGSAYIYIAEVLKRRKYGPEADIWGVMLYIFLAGYPPFWAENENGIFTAILRGOL 230  
QY 394 NFDSPWPTVSAEKDFVKRFLNKRKMTAVQALTHPMLRD--EORQIPDLILFRLL 451  
Db 231 DLSEEPWPHISPAGKDLVKKMLNPKERLTAFQVLNHPMKEDGADPTPLDNLVLDRL 230  
QY 452 KQYLRATPLKRLALKALSAREDELLYLKLOFKLE-PRDGVSLDNFTALTTRYLTDA 510  
Db 291 KQFRANNOEFKALRIIAGLSEETIGLKEMFNKIDKNSGTTTLDLKHGLAKH-GPK 349  
QY 511 MKSRVLEFHLAEPILAYRMDFEECAALISPYOLEALERWEIAGTARQOFEQGNRV 570  
Db 350 LQSESEKMLEADADGNGLIDDEFYATV---HMKLDR-EHLTYTAQYFDKDSNGY 405  
QY 571 ISVEEL-----AOELNLAPTHYSIVODWIRKSDGKLNFLGFTKFL 610  
Db 406 ITRKEELHALKEGLYDADKIKDIISDADSDNGRIDYSEFVAMM 450

RESULT 10  
US-09-547-422-22  
; Sequence 0, Application US/09547422  
; Patent No. 6130100  
; GENERAL INFORMATION:  
; APPLICANT: Kozziel, Michael G.  
; Desai, Nalini M.  
; Lewis, Kelly S.  
; Kramer, Vance C.  
; Warren, Gregory W.  
; Evola, Stephen V.  
; Crossland, Lyle D.  
; Wright, Martha S.  
; Merlin, Ellis J.  
; Launis, Karen L.

TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED  
INSECTICIDAL ACTIVITY IN MAIZE

NUMBER OF SEQUENCES: 94  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: No. 6130100artis Agribusiness Biotechnology Research, Inc.  
STREET: 3054 Cornwallis Road  
CITY: Research Triangle Park  
STATE: NC  
COUNTRY: USA  
ZIP: 27709

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/547,422  
FILING DATE: 11-Apr-2000  
CLASSIFICATION: <unknown>

PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/459,595  
FILING DATE: 02-JUN-1995  
APPLICATION NUMBER: US 07/951,715  
FILING DATE: 25-SEP-1992  
APPLICATION NUMBER: US 07/772,027  
FILING DATE: 04-OCT-1991

ATTORNEY/AGENT INFORMATION:  
NAME: Meigs, J. Timothy  
REGISTRATION NUMBER: 38,241  
REFERENCE/DOCKET NUMBER: S-18805H

TELECOMMUNICATION INFORMATION:  
TELEPHONE: (919)541-8587  
TELEFAX: (919)541-8689

INFORMATION FOR SEQ ID NO: 1  
pollen specific CDPK as disclosed in Figure 34."

SEQUENCE CHARACTERISTICS:  
LENGTH: 464 amino acids  
TYPE: amino acid  
STRANDEDNESS: single

; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
; HYPOTHEICAL: NO  
; FEATURE:  
; NAME/KEY: Protein  
; LOCATION: 1..464  
; SEQUENCE DESCRIPTION: SEQ ID NO: 22:  
US-09-547-422-22

Query Match 26.2%; Score 854; DB 4; Length 464;  
Best Local Similarity 40.0%; Pred. No. 1e-60;  
Matches 186; Conservative 88; Mismatches 163; Indels 28; Gaps 10;

QY 156 RPLDKTEFGFSKNGKAEKELCKEVRGHHG--HFGSAVVKGGEKGTAVAKIITAKMTT 213  
Db 4 RPHM-----DVRATYSKCKELGRGFGYTHICT-----HRTSGELACKTTAKKRLAA 51  
QY 214 AISEIDVRRVKILRALISGHNHNLVKFYDACEGDLNVIYVIELCEGEBLLDRILARGRYT 273  
Db 52 REDVDVRRREVQIMHHLSGQPNVGLRGAYEDKOSVHLVVELCAGGELFDRITAR-GQYT 110  
QY 274 EBDKALVVOILSVAFCHQGVVHRDLKRPENFLFTTRDENAERKLLDEGLSDFIRPDER 333  
Db 111 ERGAELRLAIVQIVHTCHSGMWHNRDIPKPNFLLSKDEDAPLKATDFGLSVFKEGEL 170  
QY 334 LNDIVGSAYVVAPEVLHRSYSMEADISGIVTYIILGSRPPWAPRESGIFRSVLRADP 393  
Db 171 LRDIVGSAYIYIAEVLKRRKYGPEADIWGVMLYIFLAGYPPFWAENENGIFTAILRGOL 230  
QY 394 NFDSPWPTVSAEKDFVKRFLNKRKMTAVQALTHPMLRD--EORQIPDLILFRLL 451  
Db 231 DLSEEPWPHISPAGKDLVKKMLNPKERLTAFQVLNHPMKEDGADPTPLDNLVLDRL 230  
QY 452 KQYLRATPLKRLALKALSAREDELLYLKLOFKLE-PRDGVSLDNFTALTTRYLTDA 510  
Db 291 KQFRANNOEFKALRIIAGLSEETIGLKEMFNKIDKNSGTTTLDLKHGLAKH-GPK 349  
QY 511 MKSRVLEFHLAEPILAYRMDFEECAALISPYOLEALERWEIAGTARQOFEQGNRV 570  
Db 350 LQSESEKMLEADADGNGLIDDEFYATV---HMKLDR-EHLTYTAQYFDKDSNGY 405  
QY 571 ISVEEL-----AOELNLAPTHYSIVODWIRKSDGKLNFLGFTKFL 610  
Db 406 ITRKEELHALKEGLYDADKIKDIISDADSDNGRIDYSEFVAMM 450

RESULT 11  
US-07-951-715A-25  
; Sequence 25, Application US/07951715A  
; Patent No. 5625136  
; GENERAL INFORMATION:  
; APPLICANT: Kozziel, Michael G.  
; Desai, Nalini M.  
; Lewis, Kelly S.  
; Kramer, Vance C.  
; Warren, Gregory W.  
; Evola, Stephen V.  
; Crossland, Lyle D.  
; Wright, Martha S.  
; Merlin, Ellis J.  
; Launis, Karen L.  
; Rothstein, Steven J.  
; Bowman, Cindy G.  
; Dawson, John L.  
; Dunder, Erik M.  
; Pace, Gary M.  
; Suttie, Janet L.

TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED  
INSECTICIDAL ACTIVITY IN MAIZE

NUMBER OF SEQUENCES: 94  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: CIBA-GEIGY Corporation  
STREET: 7 skyline Drive









```
;
; TELEPHONE: (919)541-8587
; TELEFAX: (919)541-8689
; INFORMATION FOR SEQ ID NO: /note= "protein sequence for
;                               soybean CDPK as shown in Figure 34."
;
; SEQUENCE CHARACTERISTICS:
;   LENGTH: 463 amino acids
;   TYPE: amino acid
;   STRANDEDNESS: single
;   TOPOLOGY: linear
;   MOLECULE TYPE: protein
;   HYPOTHETICAL: NO
;   FEATURE:
;     NAME/KEY: Protein
;     LOCATION: 1..463
;   SEQUENCE DESCRIPTION: SEQ ID NO: 25:
US-08-459-444-25

Query Match      25.1%; Score 817; DB 3; Length 463;
Best Local Similarity 38.9%; Pred. No. 9, 8e-58;
Matches 178; Conservative 94; Mismatches 160; Indels 26; Gaps 11;

QY 165 SKNFGAKYELGKVEGRGHCHT--CSNVVKKGEYKGOTVAVKIIAKAKMTTALSIEDVRR 222
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DB 6 TQNIREVYEGVRKLGQGGQFGTTECTRRASGKF----ACKSIPKRKLCKEDYEDVWR 60

QY 223 EVKILRALSGNNLVKFEYDACEQGLNVIYVMECEGGEIDRLIARGRYTEEDAKAIYV 282
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DB 61 EIQIMHLSHANVAVREGYTEEDSTAVHLMELCEGGEIDRLIVQK-GHYSEKQARLIK 119

QY 283 QILSVVAFCHLQGVVHRLDKPENFLFTTRDENAPMKLIDFGLSDFTIRPDERLNDIVGSAY 342
   ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::
DB 120 TIVEVVEACHSLGVMHDLKPNFLFTIDEDAKLKATDFGLSVFYKPGESFCDVVGSPY 179

QY 343 YVAPVYLHRSYSMEADIMSTGVTITILLCSRPFWARTESGIFRSVLRADPNFDDSPPT 402
   ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::
DB 180 YVAPVYLHRSYSMEADIMSTGVTITILLCSRPFWARTESGIFRSVLRADPNFDDSPPT 239

QY 403 VSAEAKDFVRFINKDYRKRMFAVQALTHPMLRDEQ--ROIPLDILIFRLIKQYLRAIPL 460
   ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::
DB 240 ISDSANDLIRKMLDQNKRTLTAEVLRHPWIVDNIAPDKPLDSAVLSRLKQFSAMNKL 299

QY 461 KRLALAKLSALREDELLYLKIQKLE-PRDGFVSLDNFRFALTTRYLTDMKESRYLEF 519
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DB 300 KKMALRYIAERLSEEEIGLKELEFKMIDTNSGITFDELKDGKRVGSELM-ESRIKDL 358

QY 520 LHALEPLAYRRMPEEFEECAAIISPYOLEALERMELAGTAFQOFEOEGNRYISYEELAQ- 578
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DB 359 MDADADIKSGTIDYGEFIATV--HLNKLRENLV-SAFSYFDKDGSGYITLDEIQQA 414

QY 579 --ELNLAPTHYSIVQDWIRK---SDGKLNFLGPTKFL 610
   ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::  ::
DB 415 CKDFGLDDIH---IDMWIKETIDQNDGQIDYGEFAMM 449
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Search completed: January 26, 2003, 11:51:49  
Job time : 26 secs

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